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THE
SOUTHERN JOURNAL

OF THE
MEDICAL AND PHYSICAL SCIENCES.

EDITED BY

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THIS Journal is devoted to the advancement of the different Departments of Medicine and the accessory Sciences. To carry out its objects the more effectually, its several departments, representing branches of the Healing Art, which are exercised as distinct branches of professional practice, are placed under the supervision of those who, as practitioners in such branches, have made them the objects of especial attention.

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43. Western Journal of Medicine, (monthly). Louisville, Ky.
44. Iowa Medical Journal. Keokuk, Iowa.

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JANUARY, 1854.

ORIGINAL ARTICLES.

ART. I.—TOPOGRAPHY AND DISEASES OF SHREVEPORT AND ITS VICINITY.

BY THE LATE R. L. SCRUGGS, M. D., OF LA.

Shreveport, second only to New Orleans in the State in point of size, and commercial importance, lies in $32^{\circ} 30'$ north latitude, and in longitude $16^{\circ} 40'$, west from Washington. It is handsomely situated on the south-west side of Red River, upon an elevated peninsula—a triangular cone in shape and amphitheatrical in appearance, being more elevated at the apex of the cone which points to the south-west, where the great Texas road enters, than elsewhere, and from thence gradually, but irregularly, descending to the river. The base of the cone looks to the north-east, and is bounded by the river, its south-west side is bounded by Cross Bayou and Duck Lake, and its south-east side by Silver Lake.

These are the natural boundaries of the town, so to speak, and enclose an area of five hundred acres, with a population of about two thousand; but the corporate limits already extend considerably beyond, into the hills, where many handsome residences have been erected. These residences are built in cottage style, are chiefly of wood, and painted white, and give to the suburbs of the town an air of great neatness and com-

fort. Indeed the whole town, with the exception of two or three of the principal business streets, is built in this style, and each residence being surrounded by handsome shade trees and beautiful shrubbery, makes the town to resemble very much the suburbs of a large city; which, though pleasant to the eye, is not believed to contribute to health, as it is constantly observed that the suburbs are the most unhealthy part of all southern cities. I presume that this is equally true of northern cities, for I have often been told at Louisville and Cincinnati, that while intermittents and remittents were very common among that portion of the population who inhabit the out-skirts, very few cases were to be met with in the heart of the city.

Shreveport is at the head of low water navigation, but steamers ply many hundred miles above this point during several months of the year.

Notwithstanding, the town is nearly surrounded by water, with a swamp in front of it, eight to ten miles wide, which widens greatly above and below, and is interspersed with innumerable lakes and lagoons, yet the inhabitants are not more subject to intermittents, so far as I have been able to learn, than those who live in the beautiful undulating country which stretches off from it far to the south and west. Indeed it is very generally believed that those who live upon the large and well cultivated plantations on the river, enjoy equally as good, if not better health, than those who inhabit the hilly country.

The town is abundantly supplied with excellent free stone water, brought in carts from never failing springs, which gush from the hills in sight. Within the past two years a portion of the water from these springs has been conveyed through iron pipes to a large reservoir, built in the centre of the town, by our enterprising fellow-townsmen, Dr. B. B. Smith, a retired practitioner, who having become wearied with the drudgery of an extensive practice, has concluded to "throw physic to the dogs," and now amuses himself by becoming interested in all public works, calculated to benefit the town or country. Our citizens are thus supplied with an abund-

ance of pure water, at a trifling expense at all seasons of the year. Cisterns are also in common use, and there are several wells of excellent water in the eastern part of the town. We are also constantly supplied with Boston ice, a luxury indispensable to comfort in warm weather, and while it doubtless materially lessens the amount of disease, is a most valuable auxiliary in the treatment of our summer and autumnal fevers.

Caddo Parish, of which Shreveport is the seat of justice, extends from the Parish of Desoto to the Texas line, a distance, by the meanderings of the river, of one hundred and fifty miles. Its long diameter is from south-east to north-west, and measures about eighty miles, while it varies from fifteen to twenty miles in width.

One mile below the town of Shreveport, at the foot of precipitous cliffs, the Bayou Pierre makes out from the river, and is nearly as large as the river itself. This bayou, after sweeping around the base of the hills for some distance, enters the Parish of Desoto, where it widens out into large lakes, which receive the waters of several other creeks and bayous. It then emerges from these lakes, and pursuing a south-easterly direction, enters the river again in the Parish of Natchitoches.

The extensive swamp country which lies between this bayou and the river, is extremely fertile, but a great portion of it being subject to inundation every year, and the whole of it in very high water, makes its subduction to the purposes of agriculture an extremely slow process. It is, therefore, as yet, but sparsely populated, only a few plantations having been commenced, and these are situated immediately upon the banks of the river and bayous, where, characteristic of southern water courses, the land rises higher than elsewhere.

Just at the upper boundary of the town of Shreveport, Cross Bayou enters Red River, and is twice as large here as the main river above this point until we pass above the Raft, where the waters are thrown off into the lakes and bayous. The waters of the upper river, which are diverted from the main channel by the Raft as well as the surplus waters of the extensive chain of lakes which lies to the west of the river.

empty into the river through this bayou at Shreveport. These lakes, of which there are several, (Caddo, Cross, Lods, &c.,) are fifty or sixty miles in extent, and vary from half a mile to ten miles in width. Their general course from this point being westward, and that of the river north, north-west, they form with the bayou at their junction here an acute angle, from which point, as you progress westward, it will be seen that the country between the river and these lakes widens out continually, making at last a wide, extensive, and fertile tract between these waters; a large portion of it subject, it is true, to inundation, but a great deal also entirely above overflow, and susceptible of a high state of cultivation. Even those lands, which are subject to overflow, are in great demand, being so much more productive than the hill lands; the planter who cultivates them can afford to lose one crop out of five, and then receive double the reward for his labor of the hill planter.

All the remaining portion of the parish, being south and east of these lakes, and bounded on the south and west by Harrison and Panola counties, Texas, and east by Desoto Parish, La., is a high, dry and undulating country. It is generally well timbered, being covered with the various kinds of oak, hickory, pine, &c. Some of the waters of this parish are impregnated with various minerals, as sulphur, magnesia, iron, &c.; and in the cliffs extending from the Bayou Pierre westward to the borders of Cross Lake, is found an inferior quality of stone coal, as, also, several kinds of rock, into the composition of which enter lime, silex, iron, &c. But my acquaintance with the sciences of chemistry and geology is too limited and imperfect to allow of my giving you any thing like a correct or satisfactory account of these matters.

The parish contains 191,912 acres of uncultivated lands, 29,971 acres cultivated in cotton, and 19,502 acres cultivated in corn. The cotton crop last year amounted to 8,266 bales. The exact amount of swamp lands in the parish I am unable to give; but the description already given will enable you to approximate to it near enough, I presume, for all practical purposes.

We now come to speak of the diseases of this section of country; and I will only attempt a description of such as have prevailed here since I arrived here—January 13th, 1850; as such information as I have been able to gather concerning the prevalence of the diseases here prior to that time is meagre and not reliable.

Pneumonia was the first serious disease that I encountered after my arrival; and I found that the people dreaded it as a disease generally fatal, and not controllable by the resources of our art. This appeared strange enough to me; and my first business was to enquire into the mode of treatment that had been pursued. I learned that blisters were usually applied early in the disease, before sufficient local or general depletion had been practised or other means employed calculated to moderate arterial excitement; that venesection was proscribed *in toto*, and cold water allowed *ad libitum*. Having learned these facts, I was at no loss to account for the fatality which usually attended the disease; and I was not long in coming to the conclusion, that the disease could be managed as easily here as elsewhere; and in this opinion I was not mistaken. I found that, although venesection was much less frequently called for here than in Tennessee, yet the great principles upon which the practice has been predicated, from time immemorial, applied with equal force in Louisiana as in regions farther north. The circumstances which would contra-indicate the use of the lancet here would also contra-indicate its use in Louisville or Philadelphia. The uniform success which has attended the use in my hands of venesection, tartar emetic, cups, etc., fully confirms the opinions of the standard authorities upon the subject; and I, therefore, reject the new doctrines recently put forth to the world, upon the treatment of pneumonia, by inhalation of chloroform, &c., at the risk of being pronounced “incorrigibly stationary.” This accusation has been recently brought against me, for refusing to admit the correctness of certain wild theories, in opposition to the opinions of the most distinguished men of the world, as, also, in opposition to my own observations.

I was called to eight cases of Pneumonia during my first

week here, and have treated a large number since—out of the whole of which I have lost but one patient, and he was an old steamboatman, whose originally vigorous constitution had been greatly impaired by intemperance and exposure. Even this case, with all the unfavorable circumstances attending it, improved handsomely for several days, and gave promise of ultimate recovery; but such was his fondness for drink that, in spite of my repeated warnings, he obtained stealthily a quantity of spirits, of which he drank freely, and the result was as might have been anticipated.

With regard to the modifications of treatment necessary in the pneumonias, which are sometimes the sequelæ of measles, and other eruptive diseases, and those which supervene in the course of epidemic fevers, (catarrhal, typhoid, &c.) as well as those cases denominated asthenic, I purpose, as soon as circumstances will permit, publishing a separate article upon the subject. I shall not do this upon the presumption that I am able to offer any thing absolutely new, but with the view of reproducing standard opinions that appear to have been lost sight of by many of the profession in our State, and of so arranging the details of the treatment as to assist, at least, my young professional brethren in their labors, and guard them against certain new theories which appear to have nothing to recommend them save their novelty.

The very fact of the question being asked, "Is Epidemic Pneumonia identical with Periodic fever?" shews to my mind a sad degree of confusion in the ideas of a portion of the profession upon the subject. That a pneumonia may supervene in the course of a periodic fever, or that a pneumonia may so subdue the vital energies of the system as to cause it so to lose its powers of resistance, that malaria, or whatever it may be that causes periodic fever, makes its peculiar impression upon it, and thus causes the periodicity of the fever, and the consequent necessity for the use of quinine, cannot be doubted. But it is clear, that in the latter case it is the accidental complication that makes the use of quinine necessary, and not the original disease.

Has quinine power to subdue an acute inflammation of the

parenchymatous structure of the lungs, liver, mucous membrane of the stomach, or meninges of the brain, or spinal marrow? The absurdity of the question appears manifest at once; yet we all know that in the treatment of all these accidents we are frequently, *but not invariably*, compelled to give quinine. The fever which supervenes upon or accompanies them may be either periodic or typhoid, according to the "prevailing epidemic constitution of the atmosphere." In the former case, the quinine would be indicated, while the latter condition would, in the opinion of the writer, most decidedly contra-indicate its use.

The *furunculoid epidemic*, with its accompanying carbuncles and paronychias, which, according to Mr. Hunt, (London Lancet,) has prevailed so universally over the world for some years past, was prevailing here at the time of my arrival—the number of cases continuing to increase until the latter part of the year, when the cases gradually became less numerous, until it nearly disappeared in the latter part of the year 1852.

The disease, although never fatal, was often extremely painful and troublesome. It frequently complicated other diseases, but generally existed alone.

Measles and *whooping cough* have prevailed here this year; but, as no deaths have occurred from them, and, as they are not invested with special interest here, I will pass them by without further remarks.

Small Pox.—But two cases of this disease have occurred in Shreveport for the past four years.

We have had no case of scarlatina since I have resided here.

Epidemic erysipematous fever prevailed here this year, from 14th of January until the 13th of April. For a particular account of its progress, termination, treatment, &c., I beg leave to refer you to an article from my pen, published in the number for July, 1853, of the "Southern Journal of the Medical and Physical Sciences."

Cholera.—During the past three winters quite a large number of cases of cholera have been landed here from the boats, and many of them have proved fatal;—but amongst the citi-

zens, few cases have occurred at any time, and but one death that I have heard of.

Dysentery and *Diarrhœa*, which prevail here more or less every year, have been more severe and the cases more numerous this year than for many years past. It has prevailed extensively in the country, I am told, and has been very fatal. No deaths have occurred from it in town. Indeed, the diseases generally have been less fatal here this year than usual. We have had fewer deaths than for many years past, although the aggregate of all diseases has been much greater. Why dysentery should have been more fatal in the country than in town, I have no means of determining.

Inflammation and Congestion of the brain in children and young adults is quite common here in the summer and autumnal months. It is in this violent disease, which is capable of producing death so suddenly, that the value of remedies is more conspicuously displayed than in any other with which we have to contend. Indeed, we never expect to lose a case, unless the patient is *in articulo mortis* when we are called. But not so with that giant disease, *Cerebro-spinal meningitis*, with which it is sometimes confounded. This frightful disease has frequently prevailed here; but, in spite of all our efforts to the contrary, still remains an opprobrium to the profession. The last case that I had to treat recovered. It was a negro girl, eleven years old. She was seized with characteristic rigidity of the muscles, loss of consciousness, opisthotonos, &c. After very free depletion from the temporal arteries, and evacuating the bowels by purgative enemata, I brought her completely under the influence of opium—as recommended by some of the French writers—and kept up the narcotism for ten or twelve hours. This was accomplished by injections with tinct. opii and assafœtida. The medicines were thrown up the rectum for the first five or six hours, for the reason that she was unable to swallow. This is the case in a majority of instances, and it is, therefore, useless to talk about giving this, that, or the other medicine by the mouth. The muscles about the neck are so affected, that the performance of the act of deglutition is rendered impossible. After the patient

could be made to swallow, I gave her the extract of opium, and kept it up until there was no longer a tendency to a return of spasm. The success which attended the treatment of this case, will encourage me to try the remedy again whenever an opportunity offers. But let no one, who is disposed to try the opium treatment in these cases, mistake a case of congestion or inflammation of the brain for this disease, for such an error in diagnosis would inevitably lead to the destruction of the patient.

I will now proceed to answer your main questions, to wit: What is the prevailing or common type of your fevers? Have you genuine Typhus, or Typhoid? Are your typhoid fevers the sequela of intermittents? Is the tendency to a typhoid condition more common now than formerly? What has been the prevailing disease during the year? Can you assign any special cause for such disease? What is the result of your experience in the use of quinine in typhoid fever?"

As soon as I became acquainted with the physicians here, I enquired of them whether or not typhoid fever had ever prevailed in this region of country. They all answered in the negative—most of them had never seen a case of the disease—and some of them denied its existence altogether. They informed me, however, that such was the violence, and *peculiarity* of some of their fever cases, that they got worse and worse under all plans of treatment, and finally died in from ten to fifteen days from the commencement of the attack. Upon a careful inquiry as to the symptoms present in these fatal cases, and learning at the same time, that the articles chiefly relied upon in the treatment of them were quinine, opium and calomel, I strongly suspected that these gentlemen had been treating typhoid fever without knowing it, (I hope the expression of this opinion may not be considered unprofessional.) I was the first physician to announce the existence of typhoid fever in this country, and it brought upon me at first ridicule and afterwards violent denunciation. This ridiculous display of temper was, however, soon suppressed; and now the occasional prevalence of the disease throughout this country, is universally acknowledged. My suspicions of

its existence here were rendered absolutely certain in a very short time, when I was called to more than twenty unmistakeable cases of the disease in one month. I lost but one of these patients, the recollection of which will ever be to me fraught with the deepest mortification, as I cannot help blaming myself for its unfortunate termination. In an evil hour, against my better judgment, I yielded my opinions to others, and permitted *quinine* and calomel to be given in large quantities, and thus my patient was sacrificed to the ridiculous hypothesis that all fevers are periodic (identical,) and consequently quinine the only agent to be relied upon in the treatment. I cannot find language sufficiently strong to express my condemnation of the old, and I had hoped exploded theory of the identity of all fevers. It appears to me to be a strange absurdity, indeed, to take possession of the minds of men of even a moderate degree of intelligence. The practice predicated upon it, has unquestionably, often led to the most disastrous results.

The successful treatment of more than two hundred cases of typhoid fever, without the use of quinine, and the unfortunate termination of several in which the article was liberally used, has fully confirmed me in my original opinion—that, typhoid and miasmatic, or periodic fevers, are separate and distinct diseases, produced by totally different causes, and consequently requiring a treatment diametrically opposite; the one mild, tentative and expectant in its character, the other bold, energetic and abortive.

Typhoid fever prevails here as elsewhere, in the heathiest seasons, when we have the smallest number of other cases of disease, particularly intermittents, and is never a sequela of that disease. The so called typhoid condition, which frequently supervenes in the course of badly treated and protracted cases of other diseases, being, in the opinion of the writer, an entirely different affair from genuine typhoid fever.

Most of the cases of typhoid fever that I have met with, commence with weariness, lassitude, and indisposition to bodily or mental effort; light fever at first, which becomes more and more intense until it attains its climax. At first a

light coat of whitish fur upon the tongue, which, if the case turns out to be severe, gradually thickens, and the tongue becomes at last black, dry and chapped, its tip and edges assuming at the same time a fiery red color; persistent pain in the head, which is only temporarily relieved by cups, cold water, and the mustard foot bath, but which generally disappears in a few days; ringing in the ears, a tympanitic condition of the abdomen, with gurgling upon pressure on the right side; a peculiar brilliancy of the eye, which soon gives place to an injected state of the conjunctiva, accompanied by a listless and apathetic expression of the countenance; at last muttering delirium, black sordes upon the lips and teeth, frequent discharges from the bowels, the dejections being mixed with mucous and blood. The rose-colored spots have been frequently observed, but in what proportion of the cases I am unable to state. The pulse varies from 44 to 130 beats to the minute. The bowels being, from the beginning, extremely susceptible to the impression of purgative medicines, contraindicate the use of drastic purges.

This formidable array of symptoms occurs only in a limited number of cases. A large majority of the cases met with here are extremely mild, presenting only a few of the symptoms enumerated above, and disposed to terminate in health, in from seven to ten days, with but little assistance from medicine. This favorable result may indeed be confidently anticipated in a majority of cases that are not injudiciously meddled with at first.

It has been urged by a few physicians that, although the disease may be conducted to a favorable termination by a mild, expectant plan of treatment, yet to prevent a tedious and protracted illness, it is better to use the *abortive* method at the commencement. In the first place, I think the measures proposed are altogether inadequate to effect this desirable object; and, in the second place, the fears entertained of a long and tedious illness altogether groundless, except in a very small proportion of the whole number of cases treated.

The prevalent type of our fevers is periodic, and easily controlled by quinine. I have met with but one case of ty-

phoid fever for more than a year, during which time we have had alternate rains and sunshine—crops good, vegetation rank, and, indeed, all the circumstances necessary for the production of malaria. You ask, “Is a tendency to a typhoid condition more common now than formerly?” I answer, that typhoid fever prevails here in *healthy* years—in those years in which we have the fewest number of intermittents and remittents—in dry years when the crops are indifferent, and vegetation stunted by drought; and hence I maintain the opinion heretofore expressed, that typhoid fever is produced by a state of the atmosphere totally different from that which develops periodic disease. I never expect to meet with typhoid fever cases in very wet seasons, when vegetation is rank and intermittents rife.

I think there can be no doubt, however, of the fact that the two diseases are occasionally commingled, when the causes of typhoid and periodic fevers are presumed to be acting with equal force at the same time. These cases are the most puzzling, most difficult to understand, and probably the most difficult to treat correctly of any that are met with.

As for proper Typhus, jail or ship fever, I do not think I ever saw a case of it.

For a more particular account of typhoid fever, as it has prevailed here, with my views of the pathology, treatment, &c., I beg leave to refer you to two articles from my pen, one in the New Orleans Medical and Surgical Journal for January, 1851, and the other in the number for May, 1853.

ART. II. — TWELVE MONTHS' PRACTICE IN THE CHEROKEE NATION, WEST.

By J. P. EVANS, M. D., LATE OF TAZEWELL, TENNESSEE.

To F. A. RAMSAY, M. D. :

Dear Sir—In accordance with the promise I made you, I have commenced transcribing my notes. I am, as you are aware, *en route* by land for Arkansas, and can only write of

nights after journeying, when I generally feel more inclined to sleep than think. Under such circumstances, (and for various other reasons,) I shall advance but few reflections, comments, or speculations, on either general results or special actions of the therapeutical agents employed. Readers will have the *facts*, as they appeared to the writer, placed before them, and can draw their own inferences.

The publication of cases indiscriminately, as they occurred and were recorded, is, I am aware, a deviation from the usual method pursued by writers for medical journals. When cases are culled from a note book, bearing on a particular disease, it is too apt to be done for the purpose of propping or building up a favorite theory, and all the ingenuity of the writer is taxed to the utmost in endeavors to sustain peculiar views. I do not pretend to condemn such productions; but readers cannot feel full confidence in them, because it is almost impossible for any man to write impartially on a subject upon which he has become unduly excited. Now, when a writer constantly manifests a warm predilection, readers may often suspect that the judgment of the author was warped during the performance of his clinical duties. To some extent such a result is avoided by the publication of cases indiscriminately, as they occurred. The variety of subjects presented in rapid succession, will measurably prevent the author from entering into tedious and often unprofitable speculations.

The plan designed to be pursued will exhibit the physician in his *working clothes*, or *shirt sleeves*—an every day coat, or none at all. The usual plan observed presents him in his best garb—a superfine coat, and boots scrupulously glossed over.

Many of the cases may appear frivolous, unimportant, and unnecessary; but the reader should bear in mind that the most valuable ideas are often called into existence by apparently trifling circumstances. Mild cases or symptoms often deemed unimportant in a given case, like the features of some faces which are considered inexpressive, will at least afford some evidence of a negative character; and such proof is often of great importance.

For a brief topographical sketch of the region in which the

"Twelve months' practice" occurred, I beg leave to refer you to the first part of "An Essay on Remittent and Intermittent Fever," in the November number (1849) of the Charleston Medical Journal and Review.

During a part of the summer and the whole of the autumn of 1851, I labored in the region referred to, but kept no notes. In 1852, I returned to the same field, and my journal commences:—

CASE 1.—*Gastric Intermittent*.—June 7th. Mrs. Foreman, aged about forty, the mother of six or seven children, above the medium height, of sanguinio-bilious temperament, was attacked in the forenoon with severe pain in the epigastrium, headache, bilious vomiting and diarrhœa, with exquisite tenderness on pressure. I saw the case in conjunction with Dr. Noel. A fourth of a grain of the sulphate of morphine was given, and pain, nausea, vomiting and diarrhœa ceased. In the afternoon there was slight febrile excitement. She had not been conscious of chilly sensations. We directed twenty grains sulphate of quinine, in eight doses, to be taken at such intervals as would consume the whole by ten or eleven o'clock, A. M., next day. There was no return of diseased action; but a slight soreness in the epigastric region *remained*, which disappeared in twenty-four hours. Convalesced rapidly.

In the autumn of 1851, I waited on the same lady for a similar affection, complicated with extensive erysipelatous inflammation of the right mamma; and, misled by the palpable soreness, on pressure, of the stomach, depended for some days on blistering, anodynes, (the latter always gave temporary relief,) and cathartics, with bland diet and drinks. But every day the distressing symptoms were repeated, (with the greatest severity at tertian periods,) and I finally did what I evidently ought to have done at the commencement—gave sulphate of quinine, twenty grains or more, in an interval, and permanent relief succeeded. The mamma was suppurating profusely at the time.

CASE 2.—*Intermittent Fever*.—June 8th. A negro woman, (belonging to Mrs. Anna Price,) aged forty-five. Has, ever since puberty, been afflicted with dysmenorrhœa. Sterility. Attacked in the forenoon with slight chilly sensations, nausea, vomiting, headache, pain and tenderness in left iliac region. The two latter conditions, as she averred, originated from a throbbing tumor; but palpation failed to reveal any thing of the kind. States that she has been subject to throbbing tumors in the abdomen, one of which suppurated and

discharged its contents externally. No derangement of the defecative function of the bowels. On the administration of one-sixth grain sulphate morphine, every distressing symptom was mitigated. After the cessation of chilly sensations, moderate febrile action ensued. At night, (febrile excitement still perceptible,) commenced giving seventeen grains sulphate quinine, divided into six parts, in cold coffee; and all were taken by 11 o'clock, A. M., next day; and during that day there was no return of the above symptoms: even the soreness in the iliac region had disappeared. The day following this intermission, (tertian period,) she rode out on horseback seven or eight miles, and whilst riding had a chill, which was succeeded by febrile excitement, &c.; but there was no recurrence of the malady at the next tertian period.

I have several times observed one paroxysm of an intermittent succeed (at the regular period) the administration of the minimum anti-periodic quantity of quinine, and not afterwards reappear. The same result I have also observed take place when a sufficient quantity had been taken, but not until a paroxysm had set in.

CASE 3.—*Intermittent Fever with Diarrhœa*.—June 9th. Mr. Tenant, a young man, a clerk in a retail store, had just passed through the desquamating stage of Rubeola, when he was taken with chill, which was succeeded by hot skin, small rapid pulse, nausea, vomiting, and copious diarrhœa. Tranquillity of the stomach and bowels quickly followed the administration of a single moderate dose of the sulphate of morphine. Directed seventeen grs. sulph. quinine, in six doses. The whole to be taken by 10 or 11 o'clock, A. M., the succeeding day. Convalesced rapidly without any farther medication.

The discharges from the bowels in this case, were lactiferous in appearance; to use the patient's own language, "looked like milk."

Just before the invasion came on, he felt some return of appetite, and eat moderately of biscuit and butter with coffee. Perhaps the chyloferous follicles, participating in the general irritable condition of the gastro-intestinal mucous membrane, refused to take up their appropriate fluid. No calomel, blue mass, or any other mercurial preparation was taken; yet the return to health was rapid.

If the discharges from the bowels were chyloferous, according to the late discoveries of M. Bernard, remedies to stimulate the hepatic organ were not indicated; for the white appearance of chyle depends on the admixture of bile and fatty matter. If this be true, the presence of bile was evident, and of course the liver was not torpid.

May not many cases characterized by *clay-colored stools*, unattended by sensible irritation of the lining membrane of the stomach and bowels, depend on a derangement of the lacteals?

CASE 4.—*Chronic Pneumonia, with Dropsy.*—June 10th. 5 o'clock, P. M. Visited a negro male child, aged ten years, (six miles,) belonging to Mrs. Rachael Ore. Early in the Spring he had suffered from a severe attack of Pneumonia, from which he had never recovered, although a slow and partial convalescence had taken place. Several times during the Spring he had febrile attacks, (always attended with an aggravation of the pneumonic symptoms,) which were controlled principally by quinine. For more than two months had had œdema of the hands and feet, with voracious appetite. No care had been observed in regard to his diet, except that his mother had taken good care to indulge him to the fullest extent, both in quantity and quality. This history I obtained from a young physician who had treated the case.

Found him in a low febrile condition, pulse small, frequent, and slightly *jerking*; respiration rapid, laboring, and stridulous, somewhat like that of asthma; coughs every few minutes; bowels torpid; feet slightly œdematous; abdomen greatly enlarged—diffuse—with distinct fluctuation; micturation scanty; emaciation extreme. At present appetite lost. Had just had a fecal discharge from the action of *Ol. Ricini*. Percussion and auscultation failed to detect any circumscribed lesion of the lungs; but, owing to the extreme fretfulness of the child, the examinations were imperfect. The prognosis, of course, was unfavorable.

R. A blistering plaster, (cantharides,) placed over the greater part of the anterior portion of the chest.

Calomel,	-	-	-	-	-	-	2 gr.
Sulph. quinine,	-	-	-	-	-	-	1½ gr.
Pulv. squill,	-	-	-	-	-	-	2 gr.
Dov. powder,	-	-	-	-	-	-	1 gr. Dose.

Three were taken at intervals of three hours.

11th. Morning. Condition but slightly changed. Febrile excitement less, and cough not so frequent. Respiration the same.

Changed the prescription to

Pulv. squill,	-	-	-	-	-	-	2 gr.
Calomel,	-	-	-	-	-	-	½ gr.

To be taken three times a day.

12th. Afternoon. Apparently some better. Appetite had returned, œdema of feet gone, and abdomen less; but still a slight febrile condition was present. Respiration less labo-

rious, but a rattle in the throat, (like a *mucous ronchus*,) which was temporarily removed by coughing, and swallowing the expectorated substance, had taken place of the more dry stridulous wheeze.

R. Sulph. quinine, - - - - - 1½ gr.

Iodide of potassium, - - - - - 1 gr.

three times a day; the squill and calomel to be continued night and morning.

16th. Found that febrile condition had disappeared, and appetite returned; but dropsy remained in *statu quo*. Directed a continuation of the preceding prescription. Saw no more of the child: was to be called on if needed. He died a week or more after my last visit.

(I will here remark, *en parenthesis*, that in country practice the physician is not expected, in many cases, to repeat his visits when, and as often, as he may deem necessary, but must be guided by the whim, liberality or avarice of the employer.)

CASE 5.—*Diarrhæa, with Catarrh*.—June 12th. Mr. Davis, aged about twenty-five, daguerreotypist. Has been afflicted for two or three days with diarrhæa, attended with severe griping; also has a catarrhal affection. Looks pale and anxious—a peculiar expression, characteristic of painful diseases of the bowels.

R. Opium pulv., - - - - - 6 grs.

Blue Mass, - - - - - 4 grs.

divided into four pills; one to be taken as often as the condition of the bowels may demand.

14th. Met him in the street; says he is much better, but that a slight laxity of the bowels still exists. Looks bright and cheerful.

R. Opium, one and a half grains, as necessity may require. Two or three doses sufficed.

In the first instance, I only used the Blue Mass to aid in forming the opium into pills, as it was friable.

CASE 6.—*Neuralgic Ischuria*.—June 12th. Visited Mrs. R., (ten miles,) aged twenty; the mother of two children, the youngest four months old. Found her with severe pain in the hypogastric, and great tenderness in each iliac region; in the left, the soreness included the spleen; frequent desire to urinate, but micturation burning, and discharge scanty; some febrile excitement, with small frequent pulse; bowels natural.

Gave sulph. morphine, which procured almost entire exemption from pain. Suspecting the case to be one of *marsh neuralgia*, I directed seventeen grs. s. quinine in six doses; the whole to be taken by ten o'clock the next day. Also left s.

morphine in solution, to be taken if the pain recurred; not at regular intervals; but in such a manner as to allay pain.

15th. Again sent for. Learned that she had been considerably better, having, on the 14th, attended to her household concerns; that this morning feeling a slight return of ischuria, and being costive, took a dose of castor oil, which had acted; and on my arrival there was no ischuria;—the pain was at the verge of the rectum, and attended with a sensation as if a considerable enlargement or tumour prevented the escape of fæces—something like the tormina of dysentery. Pain excruciating and continuous; bathed in perspiration; pulse small, and ninety-six to the minute. (An hour or two before my arrival a second dose of *Ol. Ricini* had been taken, which seemed to increase the pain, but failed to procure any further evacuation.)

R. Opium,

Calomel, a a, - - - - 2 gr.

This was given early in the night, and repeated at three o'clock A. M., and also at seven. From half an hour after taking the first dose, until I left (nine o'clock, A. M.,) she was comfortable—pulse soft and natural in frequency, perspiration warm and generally diffused. In order to guard against severe pytalism, before starting administered a dose of *Ol. Ricini*, which, as I was afterwards informed, acted without inducing a return of pain in an aggravated form.

For several weeks she continued the use of opium in one and a half gr. doses three times a day, occasionally leaving it off, and recurring to it again, to allay pain, which alternated—sometimes in the rectum, and at other times in the urinary organs.

July 23rd. In passing, found Mrs. R. with febrile excitement, which was preceded by a chill. The paroxysm ended in free perspiration, and twenty grs. s. quinine jugulated the disease. In this attack there was no pain in the regions previously affected.

From the 15th of June until the above date, (23rd July,) I did not see her, and could learn nothing in regard to relapsing or recurrent periods; (if there was really any regularity;) but it is perhaps worthy of note, that the attack of Intermittent Fever occurred just forty-two days from the first invasion of cystic derangement; so, the heptal period feature might be reckoned somewhat confirmatory of the correctness of the opinion formed of the nature of the disease on my first visit.

But the opinion in regard to the neuralgic character of the affection, did not wholly rule me in practice. In ambiguous cases the practitioner may often institute what may be termed

a *compound treatment*—so combine remedies as to meet different indications, without prejudice to the patient. On my first visit there were febrile excitement, small frequent pulse, continuous (not intermittent) pain, and tenderness on pressure over the greater part of the abdomen, but most exquisite in the regions already pointed out. This group of symptoms would be held sufficient in some regions of country to point out severe visceral inflammation. On the other hand, we often meet with cases of Intermittent Fever accompanied by severe pain, sometimes in the limbs, and at other times in some internal part, which wholly subsides with the febrile paroxysm; and in describing the pain as continuous, I meant that it was so for hours together, only. Also, a small frequent pulse characterizes the circulation in most cases of Intermittent Fever, in the hot stage; and tenderness on pressure is often present in cases of marsh neuralgia, and even in those of *tic douloureux* proceeding from causes unallied to malaria. I have no books before me, and cannot cite authorities. These facts, in connection with the knowledge that Intermittent and *true* Remittent Fevers were prevalent in the country, and had been from the time of its first occupation by an agricultural people, were sufficient to render the case ambiguous, and the diagnosis doubtful. Accordingly, a treatment was adopted which I believed to be the best calculated to subdue pain, visceral inflammation, and Intermittent Fever. Opium (or some one of its preparations) and calomel for the first, and sulphate of quinine for the latter. In the treatment of intermittent fever the two agents (opium and quinine) are not therapeutically incompatible.* The tranquilizing effect of the former, is, in most cases, as conspicuous as the antiperiodic result of the latter. Opium in large doses, (or opium and calomel,) has been gaining ground gradually but steadily, in the treatment of all visceral inflammations, for many years, but more particularly since the publication of the writings of Armstrong. For an account of opium and quinine as *Sedatives*, Dunglison's *Therapeutics* can be profitably consulted.

I am inclined to think that the quantity of quinine prescribed at my first visit was insufficient, admitting the article to have been adapted to the treatment of the case.

CASE 7.—*Rubeola*.—June 13th. A little son of J. Thompson. Febrile stage had reached its maximum. Skin intensely hot; eruption full; costive. R. Calomel ten grains. Left Dover's

* I have several times witnessed cases of Ague effectually and speedily arrested by opium.

Powder, to be taken in case of hypercatharsis, which did not take place, however. No other medicine was needed.

CASE 8.—*Intermittent Fever*.—June 15th. Mrs. Dick, aged eighteen. Slight chill, followed by a febrile stage of some hours' duration, at certain periods. R. S. Quinine, twenty grains, in six doses, to be taken in the interval. Arrested.

CASE 9.—*Sick Head-ache*.—June 16th. C. M. DeLano, merchant, aged forty. Sanguinio-nervous temperament. R. Sulph. Morphine, one fourth grain; gave marked relief.

CASE 10.—*Calculus*.—June 18th. Visited a little boy, aged four, grandson of Christy, distant eighteen or twenty miles. Four days previous to my visit, an abdominal tumour was discovered, and during the whole of that time no discharge of urine had taken place, except a very slight dribbling, which the mother did not suppose amounted to more than a spoon-full.

Found him in a disturbed sleep—moaning incessantly—and thighs flexed on the abdomen. On examination the tumour reached from the pubis to the epigastrium, was firm, and strictly circumscribed. I had not supposed the urinary bladder susceptible of such enormous distention. The penis was very much distended throughout its superior two thirds; prepuce slightly inflamed and elongated. At the termination of the distention, felt a round hard substance, apparently the size of a garden pea, and so impacted that it could not be moved by any manipulations compatible with safety to the parts. Countenance flushed, and pulse small and frequent. When aroused, did not cast his eyes about to notice any person. The bowels had acted copiously a short time before my arrival, from the influence of a large dose of calomel.

As the tumor was palpably circumscribed, I did not suppose rupture of the bladder had taken place; but owing to the protracted and enormous distention, I was forced to form an unfavorable prognosis; yet I felt it to be my duty to make some effort. My baggage not having arrived in the country, I had neither a catheter nor any cutting instrument, except a thumb lancet. With this I made a longitudinal incision immediately down upon the obstructing substance. A gush of urine followed its removal; but the flowing ceased in a few moments. In the course of an hour a sufficient quantity had dribbed away to soften the tumor slightly; and after taking a dose of Dover's powder, he slept quietly for four or five hours, (the remainder of the night;) but on the morning of June 19th, I could perceive but little change for the better. I returned and procured a catheter of Dr. E. Butler, and visited the patient again; but a considerable time had elapsed,

(twenty-four hours,) and, of course, the mischief had progressed. Found him apparently better;—pulse moderately full, and nearly natural in frequency; skin moist but warm; apparently free from pain, and disposed to notice what was going on about him. A considerable quantity of urine had been discharged; it flowed through the natural channel; the incision had healed rapidly and had a healthy appearance. But I found the abdominal tumor changed; it was still large, but soft and *diffused*, not circumscribed as it had been. On trial the catheter was found to be too large. I formed one of a small cane, with the proper curve and suitable size; but an attempt to introduce it beyond the bulb of the urethra caused the child to make a violent and frantic resistance. I was constrained to desist; but during the effort a considerable quantity of urine passed through the instrument. I noticed that this was in consequence of the contractions of the abdominal muscles.

Doubtless a rupture of the bladder had taken place during my absence. I left calomel and opium; but was informed that only a dose or two were given. The prescription was useless, except to allay pain. I saw him no more. He died two days afterwards. The calculus was of a light gray color, round, and weighed eight grains.

(TO BE CONTINUED.)

ART III.—MEDICAL SCHOOLS. SOCIETIES AND JOURNALS.

Now that Medical Students throughout the country have become identified for the present session at least, with the school of their choice, we trust, without rendering ourself obnoxious to the charge of seeking the favor or affection of either Students, Professors or Journalists, we may offer a few general suggestions with reference to the preceding subjects.

And first—in view of the renown of American Medical Professors, it would seem a matter of just surprise, that so many young men, wholly unprepared, both by nature and education, for the honorable discharge of the arduous duties incident to a life of professional engagement, should be honored with the degree of Doctor of Medicine. When, how-

ever, facts are submitted to the mind of observing men, the mystery is dissipated. When they are informed that not only has school competition increased and become formidable, but a large majority of the Trustees of Medical Schools, are usually, Judges, Lawyers, Ex-Congressmen and Clergymen, and of course ignorant of the qualifications necessary to the Medical man; when these things are known, men cease to be surprised at the *price of blood*. It is becoming the prevailing opinion, that diplomas, as now-a-days too frequently granted, are indicative of little else, to say the most of them, than receipts for two years attendance upon a Medical School—for tickets twice paid, or it may be, and occasionally is, for notes on deposit. The Physicians of Tennessee, as early as the fall of 1829—more than twenty years ago—seeing and feeling the then existing evil, and foreseeing the propriety of disconnecting the licensing system—from pecuniary consideration, made their first united public effort in the State, at improving the character and standing of the Profession. And with many of the first members, the Censors, as connected with the licensing system, constituted the *prime* object of the society. We quote so much of the provisions of the law of the 9th of January, 1830, as has reference to this subject:

“Section 7.—Be it enacted, That the “Medical Society of Tennessee,” so soon as they may meet and organize themselves, shall proceed to elect seven persons, who reside in Middle Tennessee, not more than two of whom reside in the same county, who shall constitute a board of “Censors for Middle Tennessee,” and also, in like manner, elect a board of “Censors for East Tennessee and the Western District.”

Section 8.—Be it enacted, That the persons thus elected to constitute said Boards of Censors, shall hold their appointment for the term of one year from the time of their election, and until others shall have been elected to supply their places; they shall meet at such times and places as they may agree upon, at least twice in each year, and when so convened, they shall proceed under such regulations as shall be adopted by the Society, to examine any persons who may present themselves for such examination, touching their skill in the practice of Medicine and Surgery; and if, on such examination, the Board of Censors shall deem such candidate sufficiently skilled in the science and practice of Medicine and Surgery,

they shall grant to such candidate a license to practice the same in the State of Tennessee.

Section 9.—Be it enacted, That no qualification shall be deemed necessary to entitle a candidate to examination, except that he shall be twenty-one years of age, and of good moral character.

Section 10.—Be it enacted, That if either of the Boards of Censors shall obstinately refuse to examine any candidate having the above qualifications, each member who shall be present at the time of such refusal, and shall concur therein, shall be fined in a sum not exceeding Five Hundred Dollars, to be sued for and recovered by such person or persons so refused in any court of law in this State, for his own use and benefit."

It is very apparent from the foregoing extract, that the law providing for the appointment of a Board of Censors in each division of the State, and also making it their duty to examine "any persons who may present themselves, touching their skill in the practice of Medicine and Surgery"—is singularly defective; in that it did not make it absolutely necessary that any one should be examined prior to engaging in the practice; and thus this, and infinitely the most important feature of the charter, has ever been a nullity.

The ninth section of the act of incorporation of the Tennessee Medical Society, is a noble, a peculiarly commendable feature, and which, if we remember, is unlike every other chartered Medical Institution, except perhaps, the recently much abused Medical Department of the University of Virginia.

In this respect most of the Schools of our country are decidedly *fogy*. Why bend the cultivated energies of an elastic and vigorous intellect, to suit the necessarily dull routine of an empty noddle? Why tie down the active student, prepared by classical and elementary study, to the indispensable requirements of a dull, plodding and uneducated youth? Or, why say to the diligent, industrious and studious ploughboy, whose mind, though fettered, has caught the inspiration of the age, and led him to seek affinity and claim identity with a nobler sphere—why virtually say to him, "Ours is a chartered institution! and though you bring to us the fruits of indefatigable

research and intellectual toil, they are no temptation whatever. But bring the '*Almighty Dollar*'—attend upon our lectures, let your name go to swell our catalogue, and you shall have honor not many years hence!" And all for what? For superior Medical attainment? By nightly toil he had acquired that before he first presented himself at the threshold of the Medical temple, and perhaps in a more eminent degree too, than some of those who dispense the honors of a Chartered Institution. The Tennessee Medical Society seeks to dis sever merit and its reward, from money and its incident temptations. All honor, therefore, to the framers of the Constitution of our State Society. And success, with a double meed of praise to those whose influence with the present or future Legislature, shall secure such amendments to the charter as may enable the members to carry out this, their long cherished and salutary provision—and thus become the means of returning to the Society, many of the original members; who, regarding this "as the primary and far the most important object of the Society, have despaired of its usefulness, and ceased to attend its meetings."

It just so happens—to borrow the idea of illustrious predecessors—that after much of this article was written, our attention was directed through the *Stethoscope* to the action of the Virginia Medical Society, from which we will be excused for making copious extracts.

Dr. McCaw, charged with the duty of bringing in a report on *Medical Education and remedy for defects in it*, speaks, as seems to us, in many respects, the words of truth and soberness, but when he alludes to the Medical Department of the Virginia University as being only a valuable *auxiliary*, or the great *preparatory School of the State*, we acknowledge ourselves somewhat surprised at the gentleman's irreverence. Both the Journals and the Professors in the *Old Dominion* are thoroughly imbued with the spirit of *Young America*—having neither sympathy or affiliation for any thing that has not a new face, or a modern imprint. But to the extract. After very effectually killing off the old School, by premising faint

praise, invidious remarks, &c., the report proceeds to its conclusion as follows:

“We therefore suggest that the Medical Society of Virginia respectfully urge upon the legislature, through the medium of a committee, the propriety of founding in the city of Richmond a National (State) Medical School, under the control of a board of visitors; which board of visitors shall consist—1st. Of the five members of the supreme court of appeals. 2nd. That the president of the Medical Society of Virginia shall, ex-officio, be a member of the board. 3rd. That the president and directors of the Literary fund shall appoint a member of that board. Your committee think this board of seven, so constituted, would be completely removed from all personal, sectarian or political influences, and would wield the power thus delegated to them with an eye singly to the advancement of the interests of the state, the profession and the student, and that a college so constituted would remedy any defect which may now exist, and would present to the Virginia medical student an opportunity within the state to obtain a perfect and complete medical education.

We therefore respectfully offer for your adoption the following resolutions:

1. Resolved, that the Medical Society of Virginia most cordially approve the above plan for the organization of a State Medical School.

2. Resolved, that a committee of seven be appointed, with instructions to present the subject to the legislature of Virginia at its ensuing session, and to use every legitimate means to obtain the co-operation and support of every member of this society and of the profession in the state.”

The report was received, and as presented adopted.

It is no special business of ours what kind of school they get up in Virginia, only in so far as that school shall be connected with the interests of the profession at large and the fair fame of the mother of Presidents, and some of the rest of mankind; these considerations will, however, lead us to hope, as we believe, that it will be a good one; nevertheless, we are half inclined to inquire, why the five members of the supreme court, and one other, probably as defective as they, in medical attainment, should have been elected, and that too, by medical men to preside over the grand National Medical School? Why not have honorable medical gentlemen? Men whose concentra-

ted mental energies have grappled and become imbued with the great truths there inculcated? Do lawyers in your State appreciate and reciprocate such kindly regard? Are they wont to call physicians, however aged or honorable, to corresponding relations to their Institutions? In a word, why place a medical school under *the control* of men who know absolutely nothing about it? Will you tell us, brother Otis?

The following resolution offered by Dr. Craighead and unanimously adopted, meets our unqualified approbation :

“Resolved, that this society now reiterates the resolves and declarations heretofore made by it, on the subject of medical education and medical reform; that it especially reiterates its recommendations to the legislature to pass the law for the establishment of a licensing board of medical examiners, which has been, and will be again, brought to the consideration of the legislature.”

This, gentlemen of Tennessee and the South, is what we need here and elsewhere, it is what the framers of the constitution of the Tennessee Medical Society felt their need of more than twenty years ago. It is what we are ready to unite with our brethren to-day, in asking our legislature to do for us—and it is what may be done by asking. It but requires the simplest imaginable amendment of our charter.

However desirous we are to see the charter of the Tennessee Society so amended as to require all candidates for practice in this State under proper penalties, submit to an examination at the hands of the censors; none would oppose more than we, any manœuvre by which either of our already chartered Institutions should become *auxiliary* or even *great preparatory departments* to any “GRAND MEDICAL UNIVERSITY,” which may hereafter be spoken into existence by the members of the society.

We want to see each school in honorable competition with its more favored rival, and granting as many diplomas as may seem expedient and practicable. We, however, want to see the time when each practitioner of medicine—without regard to his diploma, will be required to appear before and be examined by the board of censors, and thus let all the schools, everywhere, so far as relates to practice in Tennessee, become

grand *preparatory departments*, or if they like the relationship better—auxiliary to our State medical society. It is time our charter was operative in this respect. It is time that Tennessee physicians should be more like Virginians, "*unanimously in favor of it.*"

The subjoined is from Dr. Gooch, who is considered, and very justly, high authority:

"As will be seen by the published report of the proceedings, it was determined that a new and grand medical university ought to be made for the medical interests in Virginia. It was also determined that the profession should have, "*for itself,*" a medium of communication, i. e. a journal to be conducted by the Society. Both of these schemes were warmly advocated, and their friends beat down opposition. The meeting was *unanimous* in recommending the licentiate board bill now before the legislature, and no fellow present raised his voice, even in a whisper, against any of the proposed reforms in medical education. It is to be presumed, then, that there is no difference of opinion in regard to the great necessity of some practical measure of this kind, and we are all united in supporting the licensing system by disinterested men under state authority."

And is it true that the members of the Virginia medical society are all *united in supporting* the licensing system by disinterested *men* under State authority? And shall Tennesseans, to whom those fellows are indebted for the idea, be last in this great and much needed medical reform?

The idea of there being for any length of time after the middle of the 19th century a *Grand National Medical University* in Virginia or elsewhere in America, is simply chimerical, not to say absurd. Who does not know, that within the last few years, medical schools in the South and West have very greatly increased over their former numbers? And is it not possible, nay probable, that within the next ten years the present number will be doubled? The onward march of education, railroads; and republican institutions, is less than anything else conducive to the upbuilding and sustaining of monopolies of any kind, and as institutions of learning like every thing else, take their hue from the peculiar complexion of things by which they are environed, so the masses of men are learning

what individuals knew long ago, that "man is man's equal," and "what has been done may be done again." With the multiplication of such ideas, they cease also to reverence men for *position sake*, knowing that almost any man, if he desires, may have position. But before leaving this department of our subject, we beg permission of our Virginia brethren; their honors, the supreme court of appeals; and especially, the faculty of the *Grand National Medical School*—when that faculty shall be duly elected and installed—to call their attention, as also that of the licensing board, to the propriety of having respect to our *national* language in conferring degrees, licenses, etc. At home, in America, and in this advanced age of civilization and refinement, it seems intensely absurd for literary gentleman, themselves speaking and lecturing in the English language, to cling with such unreasonable tenacity to the latin formulæ of diplomas; which by the way, is frequently as unintelligible to the professor as the student. Would it not be more American, and therefore more in keeping with the genius of our government as well as more intelligible to professors and students, to abolish this fashionable relic of antiquity, so dear to the old fogies of the country?

After the censors, or licensing board of our state society, shall have thoroughly examined a candidate upon Anatomy, Physiology, Pathology, Chemistry, Materia Medica, Practice of Medicine, Surgery and Midwifery, and found him worthy and qualified to enter into practice, it is provided that

"ARTICLE 16.—The Licentiate shall be furnished by the Censors with a license, printed on parchment, signed by themselves, the President and Recording Secretary, and stamped with the seal of the Society, after the following manner:

'We, the subscribers, Censors of the Tennessee Medical Society, duly appointed and authorized, have examined A. B. of C——, in the county of D——, a candidate for the practice or Physic and Surgery, and having found him qualified, do approve and license him as a Practitioner in Medicine, agreeably to the law in that case made and provided.'"

We would not be understood as opposing a thorough classical education on the part of the student, preparatory to his engaging in the study of medicine; indeed, he who seeks emi-

nence in the profession without a knowledge of the latin language especially, will labor under many embarrassments and disadvantages. Though it is by no means necessary, as we conceive, that philosophy, in or out of the schools, or evidences of scientific attainment, should be shrouded in a dead language. Science, like other beauties of nature, is most attractive when presented in gay undress; and the superior excellence of learning or scholarship, in any one is made manifest only by superior aptness and ability to impress others with simple truth.

But for the correction of existing evils in medical education, we look confidently to independent licensing boards, independent associations of medical men, and independent journals. Virginia, therefore, in almost every point of view, stands foremost in the ranks of medical improvement. No portion of the American medical profession can boast two more able, dignified and substantial journals, or a purer medical literature than that already furnished the practitioners of the Old Dominion by Dr. Gooch, of *The Stethoscope*, and Drs. Otis and Thomas, of *The Virginia Journal*. And yet the physicians of the State are not content, as may be seen by the annexed extract from Drs. Boulton, Roddey and Atkinson's report on medical journals, which was also adopted:

"Your committee appointed at your last annual meeting under the following resolution:

"Resolved, that the consideration of the expediency of establishing a medical journal as the property of the society, be referred to Drs. Atkinson, Roddey and Bolton, whose duty it shall be to report at the next regular meeting of the society the plan by which, in their opinion, the enterprise may be most successfully carried into execution, together with the probable cost thereof—respectfully report, that after mature consideration and after consultation with many of their medical brethren in different portions of the State, they are unanimously of opinion that the establishment of a medical journal, under the auspices of this society, is not only practicable and expedient, but of the highest importance to the interests of the medical profession of Virginia. They are fully of the opinion that no scheme can be devised which is so well calculated to effect a complete organization of the profession, and to unite them as one man in carrying out those great measures of reform which have been so often pronounced of

vital importance to the best interests of medical science, not only by this society, but by the national association, and all kindred institutions in the United States. Such a journal is greatly needed as will elicit the views of medical men in regard to the peculiar systems of practice which may appear best adapted to the endemic diseases of the south, and especially of Virginia.

"They would respectfully recommend the following scheme : That the journal be published either monthly or quarterly, as shall be deemed best by the executive committee. That it be conducted by a corps of editors, to be chosen annually by the society, and all vacancies which may occur during the intervals between its meeting, to be filled by the executive committee. This corps to consist of seven individuals, one of whom shall be the publishing and financial agent, who only shall be paid for his services. To each of the other six a separate department shall be assigned, and no article shall appear which is not approved by a majority of the whole corps."

* * * * *

"To insure the services of a competent individual, whose whole time and energies shall be devoted to this work, we recommend that his salary should not be less than \$1,500, (amended to \$800,) nor more than \$2,000. We propose that the compensation be thus contingent upon the number of subscribers, that the publishing editor may have a pecuniary interest in the success of the enterprise, which shall act in some measure as a stimulus to his exertions.

"The excess of profits, after paying all these expenses, shall be appropriated to diminish the price of subscription so as to reduce the cost of the journal to each subscriber, to the lowest possible limit."

* * * * *

"Your committee reaffirm their conviction of the great importance and ultimate success of the enterprise, and express the hope that it will receive the decided approbation of this society."

A journal thus conducted by competent men, will, in addition to the annual reports from standing committees to the State Society, soon succeed in furnishing an amount of valuable information from, probably every county in the State; and if each of the States would pursue a similar course, then the committees annually appointed by the American Medical As-

sociation, could, by merely procuring a file of the society's journals, make a thorough report with reference to the geology, mineralogy, topography, and the peculiar characteristics of any form of disease, in any section of any one or all the States of the Union; and, after the adoption by the States of proper laws for the registration of births, marriages and deaths, the labor of national committeemen will be lessened four-fold; and thus each State, in the character of its journal, will furnish an important literary current to the grand national reservoir—the American Medical Association. And this leads us to mention the fact, that, even under the present aspects of American medicine, the reports of the Association contain really the cream of our professional literature, presenting as they do concentrated extracts from all that chairmen esteem most valuable; but when each State shall have a journal, edited by seven talented medical men, six of whom have separate departments, their journals will become second only to the reports of the Association.

We have long entertained the idea that a medical journal, to be efficiently conducted, should have a corps of scientific editors, representing the different departments of medicine, together with the diseases and topography of the most important sections of the country; and hence, when we became identified with the Southern Journal of the Medical and Physical Sciences, we were gratified to find our confreres of one mind upon this subject; and the proprietors at once selected from prominent localities, men of known and acknowledged ability as corresponding editors and collaborators; and, after some experience, and having, in the mean time, seen no reason to induce us to change our first opinion, we are not surprised that the Virginia Medical Society should have selected a corps of seven editors.

W. P. JONES.

ART. IV.—ODONTALGIA.—ITS PATHOLOGY AND TREATMENT.

A valuable article by J. P. Togg, M. D., appeared in the *American Journal of Dental Science*, (July, 1853,) under this head, which, in view of its general utility, we are not surprised to see copied entire by some of our medical cotemporaries. Believing an article on this subject needed by the physician as well as dentist, and that the one before us is as appropriate as any to be met with, we present a synopsis of the substance of it—if indeed the substance of a good article of sixteen pages can be condensed in the space of five or six.—We depart from the author's arrangement, in bringing the "Pathology" and "Treatment" of each disease together, regarding it more convenient for reference. His own words are preserved as nearly as possible, but the sign of quotation is employed only when a sentence or passage is given entire.

B. W.

To the form of Odontalgia, which is the result of simple exposure and irritation of the dental pulp, may be given the name of *tooth-ache by direct irritation*. It is characterized by quick, darting pain, and by the suddenness of its invasion and subsidence upon the presence or removal of irritants.

Treatment.—Application of narcotics and anæsthetics to deaden sensation: or vehement stimulation of the exposed nerve to exhaust its sensibility, as by the essential oils of cloves, cinnamon, cajeput. Kreosote is both stimulant and anodyne; combined with morphia in a thin paste, it acts well. A thick solution of *gutta percha* in chloroform allays the pain, and forms a coating which shields the nerve for awhile.* Permanent relief is only afforded by extraction of the tooth, or by destruction of the nerve. For the latter, arsenous acid is the most efficient, combined with four parts of morphia to abate the pain. Apply directly to the nerve on a small pellet moistened with kreosote, and covered with a cap [of wax] so as to avoid pressure.† Irritation may run on to

Odontitis, or inflammation of the dental pulp. This begins ordinarily with a dull, gnawing uneasiness, (sometimes accom-

* A pledget of cotton saturated with a solution of gum copal in chloroform answers a similar purpose.

W.

† We generally prefer one part arsenic to two of morphia, using about the 20th of a grain of the compound, and letting it remain in the cavity six or eight hours—re-applying the powder if necessary.

W.

panied by a sensation of heat,) increasing to a severe throbbing pain, the precursor of suppuration. "Should the inflammation not extend beyond the pulp cavity, the pain is not increased by pressure on the tooth, nor is the tooth started from its socket. The application of cold to the tooth is also followed by temporary relief."—The intense pain results from the distention of the capillaries of the pulp from the inflammation, and the unyielding nature of the cavity; the increasing engorgement being attended by increased pain, which is not relieved by suppuration, until the fluid gets exit through the fang, or the pulp becomes disorganized—the pus only increases the pressure on the nerves. Excitement of the heart and arteries are also apt to increase the pain. Like other inflammations, it has exacerbations at night, owing partly to the recumbent posture, and also to the warmth of the head imbedded in pillows. The pain is modified by temperament, and by the condition of the tooth. The *acute* form of inflammation of the pulp "extends to every part of the pulp and lining membrane, and terminates usually in suppuration. It is more common before than after exposure of the pulp." The *chronic* form usually results from exposure of the pulp, and is not so painful as the acute; sometimes there is little or even no pain.

The *Treatment* will be, to extract the tooth, to destroy the nerve, or to subdue the inflammation by antiphlogistics—to be determined by the amount of pain, progress of inflammation, condition of the surrounding parts, value of the tooth, &c. If the inflammation has proceeded too far for arrest, or the lining membrane become exposed, and the object is to preserve the tooth, the nerve should at once be destroyed. "If the tooth is not eroded, or if the inflammation is not caused by the direct application of irritants to the exposed pulp, the antiphlogistic treatment may succeed"—leeches to the gums, saline cathartics, and rigid abstinence. When suppuration has occurred—indicated by the tooth appearing longer than the rest, loose, and very sore—the tooth may be drilled (as recommended by Dr. Hullihen) to evacuate the pus.

Peridontitis, or inflammation of the investing membrane of the tooth, is closely allied to the preceding, and may be produced by the same causes. But it is more likely to be metastatic. The pain is first dull, then acute and throbbing. There is soreness and elongation of the tooth, redness and swelling of the gums, and sometimes of the cheek. "In both these forms of odontalgia we may have all the accompaniments of inflammation, such as constipation, headache, dry skin, flush-

ed cheeks, full and rapid pulse, in short inflammatory fever." The *treatment* is very much the same in both.

Fungus of the nerve is a growth in the nerve cavity in which the nerve has suppurated, and probably originates from a remnant of the dental blood vessels. It is of a deep red color, soft, bleeds readily and freely, sometimes insensible, at others highly sensitive. It may be small and deep in the fang, but generally protrudes, filling up the cavity formed by caries. —(Hullihen.)—It must be destroyed by the actual cautery. By bleeding it freely the pain may be relieved.

Odontalgia may also proceed from exostosis. Remedy, extraction.

MORE GENERAL CAUSES of *Odontalgia*. Intermediate between the foregoing and the causes now to be considered, is a nervous condition in which the general sensibility is so exalted that slight causes induce severe pain.

Neuralgic tooth-ache may proceed from any affection capable of producing neuralgia elsewhere. Among the intrinsic affections may be mentioned *neuritis*, or inflammation of the nerve or its neurilemma; engorgement of the vessels of the nerve; venous congestion. Any pressure on the nerve along its course, as from exostosis, aneurism, tumor or foreign body, may produce neuralgic tooth ache. The teeth are often implicated in attacks of facial neuralgia or *tic douloureux* which may depend upon similar causes. In a case of this disease, the Gasserian ganglion was fibro-cartilaginous, and as large as a nutmeg. Or the disease may depend upon disorder of the encephalon affecting the fifth nerve at its origin.

This general neuralgia of the face may result from the irritation of a diseased tooth—by *radiation*, or "that power of the nervous centres by which they disperse an impression made at one point over a wide circuit," or by *transference*, by which an impression at one point is felt at a remote one. Thus irritation of a ramuscle of the inferior dental nerve may arouse central disturbance, and be *radiated* over the whole face and head: and, (illustrative of the law of transference,) in a case of Mr. Lawrence "neuralgia of the thumb was caused by the pressure of a *pivot tooth on the nerve of an old fang*."

The teeth may also suffer those strange wandering pains which characterize the masked intermittents of malarious districts. Universal *malaise* generally accompanies the disturbance. "As the disease advances, the periodic element gradually retires, and the neuralgic becomes unduly prominent."

The pain of neuralgic tooth-ache is usually acute, sometimes mild at first, gradual in its increase and decline, usually irregular, (moderate, slow, or darting through the dental

arches,) sometimes regularly intermittent. When it occurs in sound teeth it is paroxysmal, is attended with little or no swelling, and occupies a considerable portion of the jaw, "and especially when it alternates or is associated with pain of the same character in other parts of the face, there can be little doubt as to its real nature." (Wood, Practice of Medicine.)

The *Treatment* will vary according to the cause. If the disease depend upon exaltation of general sensibility, nervous or vascular derangement, disturbance of the nervous centres, malarious poisoning, etc., it must be combatted by general treatment adapted to the condition of the case.—In obstinate cases of local neuralgia, M. Roux recommends, if the inferior nerve be involved, trephining the lower jaw so as to reach the nerve: he then severs it and passes a stick of potassa fusa up and down the canal so as completely to destroy it. For the superior nerve, an incision is made upon the cheek and the caustic introduced as deeply as possible along the infra-orbital canal.—Local sources of the disease, as pressure on the nerve from tumors, irritation from diseased teeth, &c., must be looked for and the cause removed.

Sympathetic tooth-ache.—"The nervous connections of the teeth are so numerous and so extensive, that we need not be surprised at the wide range of their sympathies. The fifth nerve supplying the whole face and all the organs of the senses brings them in relation with the entire head. But besides this, they have special connections with many of the more important organs of the head. Meckel's ganglion and its branches, forming a sort of sympathetic centre for the entire head, is directly connected with the superior maxillary nerve, just as it is about passing into the infra-orbital canal for the supply of the upper teeth. With the ear they are still more intimately connected through the otic ganglion which rests upon the inferior maxillary nerve, at its exit from the foramen ovale. This union will explain the extreme frequency of ear-ache in children at the period of second dentition, and the tooth-ache which sometimes attends it. The same ganglion, by means of the tympanic plexus which is so directly connected with it, brings them in relation with the glossopharyngeal and the pneumo-gastric nerves and so establishes a sympathy between these organs and the whole upper portion of the alimentary canal and with the lungs. Through the sympathetic system these connections are indefinitely extended. With the spinal cord they have not only the union, through the origin of the fifth nerve, with the spinal bulb, but also through the numerous filaments of the sympathetic which are connected with the spinal nerves. Thus we find that,

through this intricate web of sensory filaments, the teeth are directly or indirectly united with every organ in the system.

"During certain conditions of the system, therefore, it is not surprising that these sympathies should be roused to undue activity. Many diseases have the power of inordinately exciting nerves remote from the organ affected. The various disturbances of the alimentary canal are remarkable for this peculiarity. The anatomical connection between the stomach and bowels and the teeth, already glanced at, sufficiently prepares us to expect tooth-ache as an occasional accompaniment of disorder of the apparatus of alimentation.

"*Pregnancy* is another state which is very liable to excite sympathetic tooth-ache. This is indeed but a part of those numerous remote disturbances which are caused by the peculiar condition of the uterus at this interesting period. All the organs of the abdomen are involved in that intricate net of nervous filaments which are ultimately distributed to the uterus. The two great cords of the sympathetic which descend from the solar plexus and semilunar ganglion, on both sides of the aorta, first unite over that vessel in a plexus which weaves into itself all the various threads of which these cords and the stray fibres which surround them are composed. Having thus knit up the life of the whole abdomen in one intricate interlacement of fibrillæ, the nervous mass then divides into its two hypogastric nerves and their plexuses. These proceed directly to the ganglia of the uterus, sending off great numbers of nervous twigs to all the neighboring organs, and wrapping all the pelvic viscera in their labyrinthine threads. In this manner is the great organ of reproduction brought into relation with the entire frame. During pregnancy, as has been clearly demonstrated by Dr. Lee, the nervous system undergoes the same change to which all the other structures of this organ are subjected. They increase in size, and this increase extends even to the cords which descend from the semilunar ganglia. There are, therefore, both anatomical and physiological reasons for the extensive range of sympathies possessed by the pregnant uterus. The close contact of the semilunar ganglion with the stomach, and the relations between that organ and the teeth, explain how these may be involved."

These forms of odontalgia require constitutional treatment, which must be left to the judgment of the practitioner in each individual case.

Rheumatism and *Gout* may also affect the teeth.—Of the latter, an interesting case is recorded by Dr. Harris in his *Principles and Practice of Dental Surgery*.—The treatment must be directed towards the general disease.

ART. V.—FEBRILE ERUPTIVE DISEASES OF EAST TENNESSEE.

DR. JONES,

My Friend:—My confreres will pardon me for the failure I am compelled to subject them to, in not forwarding the conclusion of my paper on Purgation, in time for publication in the January issue of the Journal. The demands upon me for several weeks, made by the unfortunate existence of disease amongst those who rely upon me for advice, assistance, and sympathy, have wholly precluded me from labor in the library. And I hope that I appreciate the language, and am governed by its spirit, used by a writer in a number of the Medico-Chirurgical Review. “Deeds not words, should be the motto of the healing art; for whatever may be the amount of that close and persevering study of the science of medicine, of that precise and formal ratiocinative consideration of what alone can lead to a proper *action*, a physician may have credit for among his brethren, it will pass for nothing with humanity at large, unless the above important factors be worked out into their fullest products—*alleviation* or *cure*.”

For very many months—extending far back into last year—various febrile eruptive diseases have existed in this community—Erysipelas, Lichen, Roseola, and Measles, being the forms that have presented to my observation.

During the month of August last, I heard that Scarlet Fever had been pronounced to be prevalent to some extent, and from that time until the present, the enquiry has been frequently made by those reposing confidence in my opinion, as to its existence, and my reply has uniformly been, I have seen no case of Scarlet Fever, but the present “atmospherical constitution” highly favors its occurrence.

During the whole of the time since the exanthematic constitution first developed itself, the form of Measles has more largely prevailed, until recently that of Roseola, in most cases, accompanied with anginose symptoms, (or affections of the throat, of more or less severity,) has been the form generally observed, while Measles, with the same symptoms, and

sometimes ushered in very violently, yet occasionally present. During the Spring and Summer, Lichen was, by no means, uncommon; while the cases of Erysipelas were so limited in number as hardly to attract attention as an epidemic, except from a practitioner whose mind strongly tends to adopt the opinion that these (the exanthematous,) diseases are congenerous forms; that each form is a different expression of the same morbid element, modified by some occult cause, pertaining probably, to the organization attacked, as well as to the atmosphere.

I do not think that you will construe the language in which I have expressed the idea, as advancing myself into the ranks of those who contend for positive identity. It is almost the same as that used by Gregory in his lectures on Eruptive Fevers; but as I think I am more inclined to the doctrine of "intimate kinship" than he is, I have attempted its expression more positively. He says "the relationship may possibly consist in some modification of the elements which compose the morbid miasm, and may be analogous to that which subsists between the nitrous oxyde, the nitrous acid, and the nitric acid. Such a relationship, however, if admitted, is very different from the absolute identity for which some contend."

The reasons which influence my opinion may be briefly stated;—they enforced themselves upon me at an early period of my professional life, and my subsequent reading and personal observation have strongly confirmed the impression of my novitiate.

I place much importance on the fact mentioned by Gregory, in, I think, a very cavilous manner—"the epoch of the diffusion of small pox and measles gives *a certain* countenance to such a doctrine." And, to continue quoting from him, "all our best medical historians concur in the belief, that measles began to spread through the world about the same time as small-pox, and that it had its origin in the same countries whence the variolous miasm arose."

And again—the idea advanced, as the same author informs us, long prior to the discovery of vaccination, in 1753, by a Frenchman, and 1780 by an Englishman, that "the analogy

of cow-pox would lead us to conjecture that all (I mean the variolous, rubeolous, and scarlatinal,) were originally derived from cattle." This presumptive fact conveys to my mind, (receiving as it does, the dogma of simplicity in a state of nature, and complexity the result alone of the artificial condition produced by "progression" the inevitable attendant upon civilization ;) the idea of consanguinity, as close even as that of a dark haired, black-eyed sister, and a fair haired, blue-eyed brother ; the one kind, affectionate and quick, the other miserably selfish, and perseveringly revengeful—the offspring of the same parents, the product of the same cause, modified possibly by the different physical or mental conditions of one or the other, or both parents at the times of effective copulation.

Again—the similarity of the diseases in having fixed periods of incubation, eruption, maturation or duration, and declension.

The period of incubation—"the period that elapses from the reception of the germ to the eruption" must necessarily be somewhat uncertain, but for the most part observers are agreed, thus :

Small-Pox, 10 to 16 days.

Measles, 10 to 16 days.

Scarlet Fever, 4 to 8 days.

Erysipelas, 7 days.

But it is more satisfactorily settled that from the first moment of positive febrile evidences—malaise, chill, aches, etc.,—that the eruption will be seen, in

Small-Pox, on the 2d day or 48 hours.

Measles, 3d day or 72 hours.

Scarlet Fever, 24 hours.

Erysipelas, 24 to 60 hours.

Roseola, 48 to 72 hours.

These periods refer, of course, to cases in which the disease is permitted to shew itself according to the laws by which it is governed, unmodified by officious treatment, imprudent exposure, or diet, physical habit, or severity of the impression made by the poison. Equally fixed is the period of duration

or progress of the disease, until the commencement of convalescence; thus in

Scarlet Fever, 5th day.

Measles, 6th day.

Small Pox, 5th to 10th day.

Roseola, 3d day.

Again: The concurrent prevalence of the diseases in the same locality, and in the same person, or the almost regular succession which they observe as epidemics, is by no means a weak argument, sustaining the view of their congeneracy. The "curious doctrine which had been long surmised, but was never proved until the statistical inquiries of recent times showed its correctness," and denominated by Gregory, "for want of a better name, the law of vicarious mortality, by which is understood, that whenever one epidemic diminishes, another increases, so that the sum total of epidemic mortality remains, on an average of years, nearly the same," is most readily explained by the adoption of the doctrine of relationship which this letter supports; while, if not adopted, the law of vicarious mortality remains a simple fact, curious, but destitute of weight and practical value. The great epidemic mortality, from the tables furnished by the European author and his American editor, we learn, is ascribable in about the proportion of three to one to the exanthematous diseases—the remainder to whooping cough, which is becoming every year more and more formidable. One thing is very striking to an analytical reader, as he follows the evidence of the fact of vicarious mortality recorded by the learned and now lamented lecturer on Eruptive Fevers: he does not refer to whooping cough, as one year after another prevailing, but as an occasional epidemic, while the three great exanthematic affections "struggle for the mastery," sometimes existing together, and again one or the other predominating—running and desolating, or "making afraid." I quote the paragraph in which this is set forth, leaving you to consult the tables *in the work*, on which it is predicated:

"We learn from this table that every year is distinguished by some master epidemic. In 1838, *small pox* was the ruling epidemic throughout En-

gland. In 1839, *measles* and *scarlet fever* struggled for the mastery. In 1840, *scarlet fever* was so general and so fatal, that the mortality by it exceeded by one-fifth the ravages of small pox during an epidemic season, (1838,) and more than double the mortality by that disease in 1839.

"From this table we learn, that in 1838, small pox was the great epidemic in London, as in the country. In 1839, measles and scarlet fever were both on the increase, while small pox had sunk from 3,817 to 634. In 1840, scarlet fever predominated. In 1841, whooping cough doubled its numbers, and shot above all the rest, while scarlet fever (and, it is presumed, small pox and measles,) sunk to the low point which small pox had reached in 1839."

The consentaneous existence and regular succession, year after year, of the exanthem, is shown by these tables, and very aptly pointed out in the quoted language, while nothing whatever is said of whooping cough as an epidemic which exists at the same time with either of the others, or at all approaches to one in the regular succession—nothing whatever, until it becomes itself an epidemic, so powerful and extensive as to render wholly insignificant the other three great foes to man—small pox, measles and scarlet fever—the latter only being mentioned, and I suppose for the single purpose of conveying by contrast the very extended prevalence and deadly mortality of this year's (1841) epidemic—whooping cough.

This naturally brings in the next great argument, which, I think, if properly viewed, cannot fail to be at least a stumbling block to those who regard the exanthem as not simply different diseases, but each dependent on its own peculiar cause, if not convincing them of the erroneous nature of their views. It involves the discussion of the doctrine of consentaneous existence in the same organization of two specific poisons. Hunter laid down the law that two specific poisons could not act simultaneously; and since his time, observers have been active in attempting to disprove its correctness. And these observers have relied upon an accumulation of cases of small pox, measles, scarlet fever and roseola, existing in the same person at the same time, to attain their object. But have they not failed? Has it not been the practice, aye, has it not descended from the fathers in the profession, to vaccinate persons laboring under whooping cough, for the purpose of mitigating its severity by stopping the action of

the perpetual poison, and giving the tissues on which it peculiarly acts time to rest, to recuperate so as to throw off the miasm, while the vaccine virus is running its course through the system? And has the correctness of the practice been questioned, however much doubt may have been expressed of its eminent efficiency? But was it ever heard suggested to modify small pox by poisoning with scartinal virus, or to mollify scarlet fever, by inducing measles, or to destroy measles by communicating either small pox or scarlet fever? By no means. The books and journals are far from being destitute of cases in which the diseases existed and continued, in some instances *pari passu*, in others simultaneously, until their course was run. Whooping cough is a specific disease, and cow pox is a specific disease; and these, according to the testimony of Dewees and others who are regarded as authority, will and do prevent the one and the other from operating on a system in which they are both present, until the energy of the one or the other is exhausted. But not so with the exanthem—specific diseases; yet they have been frequently observed operating, the one for a time, and the other to be again succeeded by the one, and so on; and again, as often to have been effectively conjoined in their attack and simultaneous operation upon the same system. Candidly, I believe these observations sustain Hunter's law, as well as prove the opinion that the exanthem are different expressions of an impression made by a cause having originally an identity of origin; that they are congenerous forms, and from their kinship not indisposed to associate, even as intimately as to labor together upon the same organization in the work of destruction.

Again: The same tissues are affected, primarily, and in the same way, by small pox, scarlet fever, measles and roseola—the throat being to a greater or less degree involved. with an eruption upon the skin—possessing in each disease peculiar character.

I might elaborate these arguments; but for the present I refrain, both from want of time and confidence that the suggestion of their application to the purpose for which they are cited will be appreciated.

But one more and I am done. Dr. Banks, of Lawrenceville, Ill., and Dr. Purple, of New York, and others have reported cases of spontaneous small-pox;—and if as I suppose is true, these occurred during years that exanthematous diseases prevailed, what stronger evidence could be adduced to prove a point, than is this fact of the congeneracy of the diseases which have been mentioned? And that the presumption is not groundless, that the atmospherical constitution of the years in which spontaneous small-pox appeared, was exanthematous, I quote from the conclusions decided by Dr. Purple, from considering his own and other published cases:

“3. There are seasons when atmospheric causes render the system more obnoxious to the invasion of these diseases, either by spontaneous development, or increased susceptibility to contagious influences. *This was particularly the case in 1831, when there was a wide spread exanthematous tendency, and very many instances of spontaneous appearance.*”

I have thus far but seldom introduced Roseola, in my remarks, except when I thought it would tend to advance my views, and impress them, should any re-peruse my letter. Authors for the most part have regarded Roseola as a very insignificant disease, sometimes requiring blood-letting, but seldom being severe enough to attract attention. And yet there is a strange kind of connection in which the term is sometimes used, that would lead one to regard the disease as not having received proper attention. What reason can be given,—why should Gregory say that Roseola, “if accompanied by any affection of the throat, is *probably* a mild variety of scarlatina?” Tweedie and others say, the throat is more or less involved in this disease; and Woods’ language is, “nevertheless, it is often impossible to discriminate between mild cases of Scarlatina and Roseola, *especially when the latter is accompanied with sore throat.*” Gregory tells us that he would not allude to roseola, except to prevent an occurrence of incorrect diagnosis—the peculiarity of the rash, from other and more important exanthematous affections. A mistake once occurring to himself in consultation with another physician—one day his patient he pronounced in fever, the next to be effected

with roseola, and very soon it proved to be small-pox. Tweedie says that the cases frequently pronounced second attacks of scarlet fever are probably roseola. And Prof. Eve, on a certain occasion deemed it advisable, if not necessary, to call upon his colleagues in Augusta, to confirm the correctness of his diagnosis of scarlet fever.

These references are made to show that other diseases and scarlet fever are liable to be confounded, even by one who engages in practice for twenty-five years, and pays no regard to the observation of others, unless very particular attention be given to the characters by which they are to be distinguished; and that sore throat with an eruption on the skin accompanied with fever, are not alone sufficient data to diagnosticate scarlet fever. The peculiarity of the rash, the length of time it exists, the effect of the appearance, even though they be learned "from the journals," are to be taken into consideration. It is true that an epidemic of roseola has not been deemed necessary to be recorded, of so little importance has the disease been considered. But just as insignificant was scarlet fever regarded by the great Sydenham himself,—yet since his time it has become one of the worst enemies, one of the fell destroyers of man. And if this is true, and it is a fact that small-pox is yearly losing more and more of its potency, is there any stretch of imagination, to say roseola is yearly becoming a more important subject of investigation, and will sooner or later be classed with the most formidable of the maladies with which the physician has to contend? This I believe is true, and that this community is now under an *Epidemic of Roseola*.

With the views of congeneracy which I have expressed, I cannot be surprised should a case of scarlet fever occur; and for several weeks I have carefully refrained from pronouncing an opinion as to the *name* of the disease, until the eruption had made its appearance. As yet I have seen no case of scarlet fever, though we enjoy the confidence and are consulted when occasion requires, by some two hundred families in the town and immediate vicinity. And I am sure that I am not illogical in presuming that in this number of families, that if

scarlet fever had existed in the town at all, I would have seen *at least one* case. It has been remarked by very many persons, that the community regard as more probably correct an opinion expressed by a practitioner who has been observing disease for twenty-five or thirty years, no matter how limited his habit of comparing his own with the observations of others, than an opinion expressed by one of ten or twelve years practice. But the profession requires "a reason for the faith," as positively from the man whose grey hairs would indicate him a savan, if his conversation and writing would sustain the indication, as from the man who claims professional consideration, while presenting the unfurrowed brow and pale cheek of youthful confidence and anticipation. For

"Rightly to be great,
Is not to stir without great argument."

It is a pity, but truth forces to the acknowledgment that in the medical—the profession of all others which should lead to unlimited, (because unsatisfiable) research, by far too many rely upon sectarian, political, or other influences, rather than a deep persistent, and conscientious enquiry; some even assuming to be superiorly skillful, when their experience forsooth has been gained in an inland town with two or three thousand inhabitants, and without any references except to Dewees' or Eberle's or *perhaps* Woods' Practice. If such do not

"——— presume,
To wear an undeserved dignity,"

I must confess myself wholly unable to judge—destitute of a criterion by which to decide one's claims to proper respect. All things being equal, the man of longest practice is most entitled to regard. But when age forgets the duty due the profession, and remains content to let error pass without notice, provided it leaves the personal purse unaffected, the respect ordinarily accorded is not merited, and should not be paid.

"An old, old man with beard as white as snow,

* * * *

And on his arm a bunch of keys of every inner door,
But he could not use them, but kept them still in store."

The portals of the chambers of light and knowledge are ever ready to be opened by any one who may elect; but the curiosity of youth more frequently^r than the avarice of age prevents the accumulation of rust upon the hinges.

It is a well known fact that the eruptive fevers are sometimes ushered in by convulsions, frequently terminating fatally, and are occasionally initiated by deep stupidity or nervous sinking, terminating in death after a very few hours. If, as I have contended, Roseola is one of these, can we but expect an occasional case attended with all the awfulness of sudden, unexpected demise?

I have, my dear Doctor, made reference to several points, which I think best to illustrate by a simple record of cases of this epidemic. I have told you that Roseola has prevailed since the exanthematous constitution manifested itself; but within the last two months it has assumed the prominent position, and some cases have terminated fatally within a very few hours—withstanding every attempt “to keep life,” which art has furnished or reason suggested.

A lady residing some fifteen miles in the country, where Scarlet Fever was said to prevail, several cases having been nursed by herself, visited a sister, (Mrs. McM.) residing in town. Ten days after her arrival, a daughter of the sister, aged about five, had malaise, fever, pains of head, and joints, with sore throat. Twenty-four hours after first complaining, she broke out on the breast and body, and soon upon the arms and legs, with a very red eruption, formed in coalesced rings of greater or less diameter, but all having within their circumference the natural white ground of the skin—it was not an eruption upon a scarlet base. My partner, Dr. Paxton, the younger, was called to this case, and pronounced it—notwithstanding the alarm of the parents, and the recent avowed contact of the Aunt, with a disease asserted to be Scarlet Fever—to be Roseola. A mercurial purgative, alum to the throat, and salicine, were the agents entering into his prescription. The case he discharged cured seventy-two hours after the appearance of the eruption. A few days afterwards the sister of this child, and near two years its elder, sickened,

presenting the same symptoms, but not so severe, and was discharged cured before forty-eight hours—the rash not wholly gone. In these, as all other cases, which have been observed, running the finger over the eruption caused its momentary disappearance, followed by prompt return; and but very slight desquamation—rather furfuraceous—occured. A younger child has, as yet, remained unaffected. Within ten days after these cases, a child going to school, but so far as can be determined, not subject to contact with any one diseased, and whose parents (Dr. F.) reside a full half mile from the residence of the family first mentioned, and with a very considerable hill intervening, was attacked—sore throat, fever, eruption—recovery within seventy-two hours. Two other, and younger children were attacked, and recovered in less than five days. During the same week, and while these cases were under direction—I was suddenly summoned—(myself the subject of very violent sore throat) to a child, aged about four (W. S.) who had been a patient of mine in convulsion, and more frequently in threatened convulsion. He had indulged during the day somewhat freely, and had been early in the night seized with vomiting, succeeded by convulsion. A tight abdomen, and nausea led me promptly to administer an emetic. The convulsion was staid, and he seemed to sleep, with an occasional twitching, being carefully watched by Dr. Fatio—a mercurial purge having succeeded the effective impression of the emetic—until about noon, he became convulsed, which seizure was again and again followed by violent spasm, until about eight o'clock; twenty-four hours after first complaint, he died. It did not then occur to me that this case was at all one from epidemic cause, but I am since very much disposed to regard it as such. No soreness of throat, or appearance of eruption was observed.

Twenty-four hours after his death, a younger brother, aged 15 months, was evidently unwell. Forty-eight hours afterwards, an eruption in circles, becoming pale on pressure, but immediately resuming color, white base within the circumference, and by no means general, but at different parts of the body, arms and legs, appeared. This child remained sick for

ten days; its throat most violently sore, but which seemed to be relieved for forty-eight hours before death;—indeed it was, in every particular, doing favorably well, when, suddenly and unexpectedly, it commenced sinking, and died within an hour or two. Two other children remained unaffected. About the same time, I was called to see a negro child, aged five months, in convulsion, at the house mentioned as the second, (J. F.,) in which the disease had presented. It had no eruption; had sore throat; recovered so as to pass from under charge within ninety-six hours. At the same time this case was under observation, the eldest child and daughter of a gentleman, (J. E. H.,) residing in a different quarter of the town, but a member of the same school attended by the boy of the second (J. F.) family after returning from school in the evening, retired to bed, and was found convulsed probably thirty minutes afterwards. Forty-eight hours afterwards, an eruption made its appearance behind the ears. Her throat was sore and the circulation exceedingly excited, with very undue heat of the skin. The eruption gradually appeared on the face, neck, thorax, and so on, occupying six days in its course; was raised above the surface; was irregularly crescentic in form—the child leaving its bed very soon after the eruption was decided. In short, it was a plain case of measles. Another child, and younger, remained unaffected. Shortly after this, a child, aged 15 months, (Mr. D.,) after some twenty-four or thirty-six hours' complaint, presumed to result from teething, with constipation, became convulsed, evidently had sore throat, continued to be spasmodically affected, and sank within eighteen hours from the convulsive attack. No eruption could be discovered. Another family in the same quarter of town, (J. D. G.,) has presented several cases of measles, with sore throat. All as yet have recovered, though one or two children remain unaffected. And but a short distance from this family, and on quite an elevation, resides another, (Prof. M.,) in which the mother had chill, fever and sore throat. She was sick probably four days, when a daughter, five years old, complained of head ache, had fever, and was put in a warm salt bath. Moisture of the surface

followed; she went to sleep, passed into stupor, and was a corpse within twenty four hours. Neither the mother nor the child had any eruption.

A few hours after the death of this child, a younger sister, sickened, vomited, had fever, slight sore throat, followed within forty-eight hours by an eruption, not raised above the surface, on a pale ground with white skin within the circumference of the coalesced rings, from which time she improved until now, though her recovery seems laggard, much more so than any other case which has recovered. A third child, 15 months old, is now sick with the same evidences of disease. A family residing a mile and a half from town, (J. W. N.) with quite a number of children, has been affected for some time. First, a child with sore throat, and an eruption; second, a child aged 12, sore throat, without eruption; third, some negro children, none, however, sick longer than 72 hours, the full appearance of the eruption being attended seemingly with very positive declension of general or constitutional symptoms; though every case presents the periodic element, and without doubt salicine and quinine have been used with very decided advantage. And finally, the mother of this (J. W. N.) family who had scarlet fever when a child, but of which she has distinct recollection, sickened. Her throat was very sore, and she broke out on the breast and over the body, legs and arms, with a very red eruption of coalesced rings on a pale surface, having within their circumference white or pale skin. The eruption was in every particular like the eruption seen in all the other cases, and is without doubt Roseola.

I have been informed that one practitioner who has had occasion to observe a number of these cases, with a sincerity that proves him to be familiar with appearance of measles and scarlet fever, but with true republican freedom, has pronounced them to be cases of a *new kind of measles*;—Dunglison describes Roseola under the title of French Measles.

In no case of death, did the throat affection produce difficulty of breathing to any very considerable extent, and sloughing did not occur in a single case, one only tainting the breath with the smell of putridity.

I have written hastily; we are yet in the midst of this epidemic—a death having just occurred in my own house, a negro child aged three years, who was well, hearty, and playful twenty-four hours ago.

Yours respectfully,

FRANK A. RAMSEY.

Knoxville, December 8, 1853.

ART. VI.—GEOLOGY OF TENNESSEE.

BY RICHARD O. CURREY, A. M., M. D.

The act appointing a Geologist for the State of Tennessee was passed in 1831. Dr. Gerard Troost, then Professor of Chemistry, Mineralogy and Geology in the University of Nashville, was selected by the Legislature to undertake the survey. The duty assigned him was to make this survey with the view of developing the Mineralogical resources, to make analyses of substances of value, examine the soils in different sections of the State, "with such other remarks as may lead the citizens to an estimate of comparative value and use, as well as to enable them to judge understandingly of its metals and minerals."

No limit was fixed to the duration of the appointment, but he was required to report to the next Assembly what he had done as Geologist, and for this work he was to be allowed \$500. This act was passed after he had delivered a discourse before the Assembly on this subject, of which by resolution, a copy was requested for publication.

In 1833 he was continued in office for two years, his salary now being fixed at \$500 per annum, and such additional acts were adopted at each succeeding session till 1850.

I am not able to ascertain the character of the first Report, nor when made, unless the discourse delivered in 1831 was so regarded.

The second Report in 1833, is noticed in the Journals of the House, an extract only being given by the committee on Statistics. The subject of the report appears to have been a description of the Coal Formation.

The third Report in 1835, contains, 1st, an account of the coal formation, with a map, as it exists in the Cumberland Mountains; 2d, marl, the soil of part of Middle Tennessee,

and an account of some of the iron ores, with statistics of Forges and Furnaces.

The fourth Report in 1837, begins with an outline of the Science of Geology, and then gives a description of the Ocoee District. A note is appended containing a list of the organic remains found in the Mountain Limestone of Tennessee.

The fifth Report in 1839, gives first an outline of the Geological formation in Tennessee, with their characteristic fossils; second, a particular description of Cocke county, its minerals, soils, streams and vegetation, and the meteoric mass of metallic iron found in that county; third, additional investigations into the iron ores of the State, and fourth, a notice and an analysis of the silver ore (sulphuret of silver,) found in the bed of Caney Fork River on Cumberland Mountain. This Report also contains an appendix, giving a list of the organic remains.

The sixth Report in 1841, contains, first, an account of the changes that had recently been introduced into the nomenclature of the Science; second, a general description of Sevier county, and third, an account of the roofing slate of East Tennessee, and of the abundant materials for the manufacture of alum, sulphate of magnesia, and salt petre, concluding with the analysis of several mineral springs in various parts of Middle Tennessee.

The seventh Report in 1843, contains, first, descriptions of the counties of Davidson, Williamson, Maury and Perry; second, a more minute description of the green sand in McNairy county, and third, a list of some of the animals in the State. In a supplement to this Report, attention is directed to the lead and zinc ores in East Tennessee.

The eighth Report in 1845, describes the most advantageous routes for the construction of the Nashville and Chattanooga Railroad, especially with reference to the abundance of coal, alum, iron, limestone and sandstone on these routes.

The ninth Report in 1848, contains, first, a description of Jefferson county, and second, an account of the zinc ores of Tennessee.

The 10th Report, in 1850, was purely scientific in its character, giving a short account of the Crinoidea of the State. It was not published. Such has been the interest awakened in regard to the mineral wealth of Tennessee, that these reports are in great demand. But as no care was taken to preserve them, they are scarcely to be found complete. They evince clearly the industry and the scientific attainments of the man to whom the survey was entrusted. We see him, in the infancy of the science, entering upon the examination of

an unexplored field, as varied in its geological formations, minerals and fossils as in its climate and scenery. We see him toiling alone, at one time, along the rugged mountain sides, then winding his way up the quiet and shady valley, penetrating the inmost recesses of the earth, exploring the plains and the fields, and developing the mineral resources of the State, and for what?—not surely for the pittance granted him as compensation for his labors, but through his innate love for the noble science which he had espoused. From 1831 to 1850, his exclusive study was the soil, the rocks, the minerals, the plants and animals, and especially the fossils of Tennessee, musing alone upon these ancient inhabitants and reading in them the history of the dark ages of the earth. The Cabinet of Natural History, perhaps second to none in the Union, which he collected and arranged, composed in a great degree of the results of his own explorations, especially in organic remains, is a monument to his industry and scientific knowledge. It marks at present the spot where he labored. But there is also due him a monument of *Tennessee* Marble to mark the spot where he now rests from his labors.

With this synopsis of what has been done for the development of our mineral wealth and agricultural interests, I will proceed to set forth, as briefly as the subject will admit, what remains to be done to advance the State to the position to which her resources and advantages justly entitle her.

My subject will lead me to an examination of the geological formations of the State. Taking up these, therefore, in the order in which nature has placed them, I will endeavor to trace out the extent of each—the minerals found in them—their adaptation to agricultural interests—and their economical relations in every respect. The great length of the State, compared with its breadth, causes it to partake somewhat of the peculiar formations of each state by which it is surrounded. And as it is divided by natural boundaries into three great divisions—it is a singular fact that these lines also serve as lines of demarcation between its principal geological formations. These, in the order in which they are found, embrace :

1. The unstratified, granite rocks—Smoky Mountains.
2. The stratified Metamorphic rocks—Smoky Mountains.
3. Lower Silurian—East Tennessee and Nashville.
4. Upper Silurian—Middle Tennessee.
5. Old red sandstone, or Devonian—Cumberland Mountains, East and Middle Tennessee.
6. Carboniferous system—Cumberland Mountains.
7. Cretaceous system—West Tennessee.
7. Alluvium—Mississippi River.

These formations will be considered in the order to which they belong.

EAST TENNESSEE.

There is not found in the Union a more interesting field of the same extent for geological observation than East Tennessee. This is true, not only with reference to the vast numbers of useful minerals imbedded in its strata, and the great quantity of some of them, but also to the complicated arrangement and peculiar character of its rock strata.

In describing, therefore, the formations existing here, and their economical applications to the wants of society, I will begin at a point in the State line on the Smoky Mountains, where the county lines of Blount and Sevier terminate. From this point draw a line in a N. W. course to Knoxville, thence N. E. to Tazewell, thence N. W. to the Cumberland Gap, and every important stratum will be passed over. On this summit of the Smoky Mountains there are found the primordial rocks, consisting of granite, gneiss, mica slate, talcose slate, and quartz rock, containing imbedded crystals of actynolite and garnet. These primordial rocks are not traceable exactly on the boundary line between this State and North Carolina, but sometimes deviating to one side and then to the other. Where we begin, they cross the mountain, and on the western descent we soon enter upon a series of sandstones and shales and slates of a primitive or metamorphic character. These strata are found to possess an inclined position, the dip being inwardly S. E. to the centre of the mountain, giving the appearance to the primordial rocks, which they actually do, of overlying these stratified rocks. The dip of these strata being to the E. S. E., the strike or course of the upturned edge is from W. S. W. to E. N. E., observing the general direction of the mountain range. Continuing the descent, we next come upon the slate rocks, a singular stratum of limestone, composed of fragments of limestone cemented together, with the same substance, forming a beautiful breccia marble, then to a calciferous sandrock, and then successively over the uplifted edges, and at right angles to the course, of each stratum, till we have passed about five miles to the N. W. of Tazewell. To this point, each stratum of rock, whatever might be its character, is found to possess similar dips and courses, the angle of inclination being about 45 degrees—unless in a few localities where silicious veins have evidently been forced up through the disrupted rock strata. But a new arrangement presents itself at the point alluded to. As it is approached the strata are found to become less inclined, until at

last they have assumed the *horizontal* position. This *anticlinal* axis is about three miles wide, and composed of the calciferous sand rock. The strata to the N. W. of it dip in an opposite direction—gradually inclining to an angle of 45 degrees and more, until they are lost under the Cumberland Mountains.

This axis and these opposed strata, possess the same course as those previously described. To illustrate this, take a book and, partially opening it in the middle, place it upon a table on its edge, the horizontal back will represent this anticlinal axis, and the leaves, the strata inclined against each other. The strata on each side of this axis are identical in every respect. It may be traced from the base of the Cumberland Mountain to the North of Clinton in an E. N. E. direction into Virginia. With the exception of the primordial rocks on the summit of the Smoky Mountains, we may regard this calciferous sandrock as being the lowest in the series of *lower silurian* rocks in East Tennessee. Its position, with reference to the other strata, is in the following order:—1, Unaka sandstones and shales; 2, Unaka slaterock; 3, Talcoose slate; 4, Calciferous sandrock with silicious veins; 5, Magnesian limestone, with veins of calcareous spar; 6, Fossiliferous limestone; 7, Red argillaceous limestone, with large veins, and sometimes strata of hydraulic limestone; 8, Shale, upon which rest the coal measures of the Cumberland Mountains.

Now, here are only eight different strata, and yet such has been the force with which their formations have been upheaved, and at so many different points does the action appear to have been exerted, that there are not less than *fourteen* series of strata, while the number of uplifted strata do not themselves fall short of forty. I have not space or time in these articles to speculate in regard to the probable mode in which these upheavals were produced. The agency is apparent, and the time—that period when the Appalachian chain received its towering height—is obvious at a mere glance at the Physical Geography of the country. So uniform was the action by which those strata were broken up and made to overlie each other, that the appearance of one stratum indicates the existence of others in regular order, thus we find Nos. 4, 5, 6, 7; or 4, 6, 7; or 4, 7, but never 6, 4, 7, 5, or any other reversed arrangement. This regularity is of decided advantage, especially in those strata which can be applied to the wants of society. It enables the quarrier to trace out a stratum, or the miner to sink shafts without an useless expenditure of time and money. Two instances may be adduced. The stratum in which the Copper of the Ocoee Dis-

trict is found partakes of this same general inclination, and a direct E. N. E. course. The miner therefore reckons his distance for sinking his shaft through the overlying strata, and can readily trace out the course of the vein. And again, No. 5 in the series of rocks is a valuable stratum of Marble which is found to occur *five times* in our line of observation, namely, near the base of Chilhowee Mountain, two miles south of Knoxville—one mile north of Knoxville—north of Clinch Mountains, and near Tazewell. Possessing the same E. N. E. course with the other strata, each one may be traced out in its entire length. Take the stratum, for instance, north of Knoxville, and it is the same found at or near New Philadelphia, and near Rogersville. It is supposed by some that there are different strata of different colored Marbles, but I am inclined to the belief that these different colors are but layers of the same stratum, and that the reason why the Marble is found red at one place, white at another, and blackish at a third, is due only to the partial appearance of these different layers. So inexhaustible in quantity, and acknowledged by competent judges at the New York Industrial Exhibition, and at the Capitol at Washington to be of an unrivalled quality, there are only needed the facilities of transportation to render this a source of enterprise and wealth.

There runs through a portion of East Tennessee a stratum of old red sandstone, and it has been often reported that coal had been found in connection with it, but I am inclined to believe that it is only shale of a highly bituminous nature. Coal, if to be found there, would partake of the characters of the anthracite variety.

I have dwelt rather longer than I had intended upon the descriptive Geology of these formations, I turn now to consider them briefly in another point of view—for the great variety of ores and minerals which they contain.

1. *Gold*.—The Ocoee District has been long famed for its hidden treasures of gold, and though it has been and is still being found, yet the *lump* and the *nugget* still evade the search of the most scrutinizing. Its proximity to the gold region of North Carolina would seem still to hold out inducements to the patient explorer.

2. *Copper*.—Here in this same district, and in the same vicinity where the gold was so assiduously sought for, there have recently been found extensive deposits of several varieties of rich copper ore. The specimens which I have had the pleasure of examining, consist of the black oxide, red oxide, green carbonate, copper pyrites, and the native copper. The black oxide is dug out from between the strata of the talcose

slate and mica slate, and yields from 40 to 60 per cent. of metal; it is in masses of a dull black color, and forms a stratum from 10 to 50 feet in thickness. There are eight companies at work, shafts being sunk through the overlying stratum of talcose slate, in some instances to the depth of 150 feet. The stratum of ore has the same dip of 45 degrees to the S. E., and the same course E. N. E., as the rock strata of the country. The native copper is generally found in flat arborescent form, and yields about 96 per cent.—the remainder being quartz and a trace of silver. Over one hundred wagons are constantly employed in conveying the ore to Dalton, Ga., for shipment to the north. One of the companies, however, intend at an early day erecting a furnace for smelting the ore at or near the banks.

3. *Zinc*.—Near the Anticlinal Axis, in Powell's Valley, I had the pleasure of examining in 1849, several deposits of the Carbonate of Zinc. Its analysis, recently made from a specimen then procured, yielded about 50 per cent. of pure metal. In the ninth report of our late Geologist, another locality is mentioned in the New Market Valley to the north of Dandridge. Being found so convenient to the copper mines, here is afforded in the manufacture of brass, another important element in State and individual wealth.

4. *Hydraulic Cement*.—In the red argillaceous limestone, which was noticed four times in the line of observation from the Smoky to the Cumberland Mountains, are found large veins, and sometimes layers of a semi-crystalline mineral, more or less of a reddish hue, which proves to be the *hydraulic limestone*. It is already being worked, and is found to be of excellent quality. The stratum in which it occurs is found to be very extensive.

And then again, there are the rich and inexhaustible iron banks, with the coal of the Cumberland Mountains near at hand—and the lead ore of Claiborne and Grainger—the immense strata of roofing slates on the western slope of the Smoky Mt., the plumbago, the tin and cinnabar which is said to be found in the same Mountains, the salt of Anderson county, and the manganese, the abundant materials for the manufacture of Epsom Salts, Alum and Saltpetre, in the caves and ledges of this Appalachian chain, and added to these, the fertile valleys, and the hill sides, so well adapted for the growth of grass and for the raising of stock, and not least, the salubrity of the climate, and the great variety of its mineral springs, all indicate a bright future to that portion of Tennessee.

But there is needed a thorough and accurate geological survey to develop these rich resources.

MIDDLE TENNESSEE.

The geological observer, as he passes in his explorations over each successive stratum composing the various formations of a district, has at his command at least three characteristics by which the different strata, especially when interrupted by mountains or ravines, may be classified and referred to a common origin. These characteristics relate to the chemical constituents of the rock, its relative position, and the organic remains or fossils imbedded in it. He experiences no difficulty in forming a conclusion by the application of the first two tests; but in order to satisfy himself of the correctness of that conclusion, he must thoroughly read the history imprinted on that rock by the animals which existed at the period of its deposition. These three tests, therefore, enable him in a scientific manner to group together the rocks of a district in established formations. We have so far in our articles had but little to say concerning this mute language of our geological formations, though the field over which we last passed was, in this respect, of no ordinary interest. The object of these articles, being solely to call attention to the economical relations of the series constituting the various formations in our State, I have thought that this could be better secured by giving, first, a general outline of each rock stratum and groups of strata, and second, by showing the application of each to the wants of society, as well with reference to the value of the minerals contained in them, adducing these as reasons why the State should, through its General Assembly, provide for a thorough and accurate Geological Survey.

I pass now to the consideration of a new field, differing in the position of its strata, as well as in their characters, from those in East Tennessee; not so rich, however, in *mineral* resources, yet embracing within its limits abundant materials for individual enterprise. Here, too, the fossils of these middle counties, lying between the *base* of the Cumberland Mountains and the Tennessee River, so rich, so numerous, and so varied, render this as classic ground for the naturalist.

The traveler, on descending from the heights of the Cumberland Mountains, finds, as he continues his journey towards the city of Nashville, a series of rock strata, each successive one being so much lower than the others. These strata are also found to differ in several other respects. If, then, he should pass beyond this point in any other direction, N. S. or

W., he notices that he gradually ascends in like manner until he reaches the high lands, of a similar character to those at the base of the mountains.

The conclusion naturally forces itself upon his mind, that Nashville is lower than the surrounding country. This is true in a geological, though not altogether in a topographical, point of view.

I will, therefore, take this point as our starting place, in order to give a general description of the surface of the country under examination. Beginning at low water mark of Cumberland River, under the bluff, there is observed a thick stratum of a deep blue or blackish limestone, characterized by a small number of fossils—containing regular lines of flint nodules, some of which are round, possessing imitative shapes, and others extended as thin layers. Tracing this stratum, it is found to disappear as we descend the river, possessing, therefore, a slight inclination to the N. W. On ascending the river, however, it is seen to rise higher and higher above our low water level, causing the natural inference, that it must, at some point to the S. E., become a surface rock, and as such it is noticed at Mill Creek, and in Rutherford county.

With reference to this same stratum, Prof. Safford, of Lebanon, has remarked that its highest altitude is in that county. Now as it constitutes the lower stratum in Middle Tennessee, and as it is covered around at all points by superincumbent strata, it is a natural deduction that at this point in Rutherford county, where it has attained its maximum altitude, it was upheaved by some internal force, local in its action, giving it the appearance, as Prof. Safford justly says, of a “denuded dome.” From this “dome” in all directions, there is a gradual inclination of this stratum, till it is lost under the next succeeding one. Of its extent, it may be remarked, that it manifests itself several places in Rutherford and the adjoining counties.

Returning to our starting point, the succeeding strata are composed of gray and blue limestone alternating, not so compact—but of a more crystalline character—containing numerous cavities filled with beautiful crystals of various mineral substances, such as carbonate of lime, sulphate of strontian, sulphate of barytes, sulphate of lime, and quartz. Beautiful cabinet specimens may be procured from newly opened quarries. These strata embrace the rock from which is obtained the blue limestone for the foundations of our houses, and for burning into lime. It contains its characteristic fossils, more numerous, and somewhat different from the preceding, evidence of its belonging to a different group. Overlying

these strata is another, which, on account of the great number of shells of the *Orthis* genus, might be distinguished as the *Orthis* limestone, the entire rock in some places being a mass of agglutinated shells. Just above this stratum comes another which is abundantly found in some places, but appears to be somewhat isolated, though the connection of the various beds may be easily noticed on opposite sides of intervening valleys or ledges. It is from this stratum that is obtained the large and inexhaustible quantity of ash grey limestone, used for building purposes in this city,—of which the capitol and several public buildings are constructed. The State quarry in this vicinity opens to view a thick stratum of this limestone, one of the most interesting localities in our vicinity for geological observation. Overlying this stratum is another of limestone of a compact structure, easily pulverized, breaking into flat, and somewhat conchoidal pieces, of a grey color. It is preferred for the purpose of grading our Macadamized turnpikes, on account of the readiness with which it breaks up, and the fine surface it affords when cemented together. And the last and highest in these series is a stratum possessing a yellowish color inclining to grey, well characterized also by fossils. It constitutes the uppermost stratum of the lower silurian rocks in this region. All the rocks between this and the first stratum noticed, belong to the lower silurian system, though they may be sub-divided into groups, and named according to the prevalence of each in certain localities. This entire limestone region embraces the interior counties of Middle Tennessee, possessing an area of about one-half of this district. Surrounding it, there are a series of elevated ridges which generally take their name from the water courses which originate in them, as Caney Fork, Elk, Duck, Harpeth, and White's Creek ridges. They observe no particular direction, but surround this limestone region, presenting at places bold escarpments, like the walls of a fortification. These strata are of a more recent origin, and consequently are superior to those just passed over, and belonging to the upper silurian, devonian, and carboniferous systems. The first group consists of several members of limestone rocks, which crop out at the base of some of these ridges, while in others they are wanting. They possess colors ranging from grey to blue. One member being of variegated colors, with red and green spots, and plentiful in crinoideal fossils, and somewhat compact in structure, would afford an excellent marble. I have examined a locality some ten miles to the west of Nashville, and incline to the belief that it would, on further exploration, be found an extensive and valuable stratum. It is susceptible of

a fine polish, the encrinital stems scattered profusely through it, giving to it a beautiful appearance. Next in order in these ridges, is found the black shale or slate, of various thicknesses, of an aluminous character, sometimes so highly charged with bitumen as to lead the uninformed to suspect the existence of coal. The iron pyrites, which is sometimes found in it in great abundance, renders it valuable as the source for the manufacture of the Alum, Salts, and Copperas.

To this succeeds a stratum, denominated by our late Geologist, as "the Silicious Stratum"—it constitutes the uplands, and embraces nearly one-half of the entire district. Constituting the table land at the base of the Cumberland Mountains, it is occasionally prolonged farther Westward in spurs, while at other places the mountain streams have cut deep ravines through it to the depth of the limestone beneath. Extending into North Alabama, and again entering our State and occupying all that region embraced by the counties bordering on the Tennessee River on the east—it surrounds as a zone or girdle the fertile limestone counties of the interior. This extensive stratum belongs to the Carboniferous System, and is composed of several members, a silicious stratum, and a calcareous sandstone. The water courses, originating in the interior, have cut their way through these strata, exposing the limestone and black shale below. These strata terminate before reaching the Tennessee River—the channel of this stream being upon the upper silurian limestone. About ten miles to the west of this River the entire systems of Middle Tennessee are lost under the Cretaceous Systems of the Western District.

In the examinations of the various soils, there is observed a constant change as we pass from one variety of rock strata to the other. They also influence the growth of the forest-trees, and are of no little importance in the productions of the farm.

I proceed, therefore, to a consideration briefly of the relations of these strata to the wants of society.

1. *Limestone*.—In this region, where doubtless, in the early history of our earth, there was but one vast field of sandstone and gravel, a strong central upheaval took place, elevating the country for several miles in circumference. The summit being denuded by the atmospheric agencies, has left exposed the underlying strata of limestone—constituting the limestone basin of Middle Tennessee. The value of these strata can only be appreciated by those who reside in districts where they are not found. In their economic relations to the arts, and to agriculture, they are so indispensable as to constitute

an important element in commercial pursuits. From her limestone strata the State of Maine derives, annually, a revenue of more than half a million of dollars—transporting the stone and the calcined lime to all the Atlantic cities, even to New Orleans and the West Indies. Much of the lime used in Southern Georgia being from that State. Cannot these same strata in our State be thus profitably employed? Can they not be turned to good account as a fertilizing agent for the unproductive uplands which abound in the State? These are subjects which might be shown to be of great interest to our State wealth, by being thoroughly investigated and earnestly presented to the community by a “State Geologist and Agricultural Chemist.”

2. *Lead*.—In our limestone strata, associated with Barytes, are found several deposits of Galena, (sulphuret of lead,) the quality of which is good, but the quantity of which is not yet ascertained.

3. *Alum, Copperas, Epsom Salts*.—The Black Shale of our ridges is frequently mixed with iron pyrites, which on exposure to the atmosphere and dampness, decomposes, resulting in the production of Alum and Copperas, and of Epsom Salts, if Magnesia be present. In many of the caves on the western declivity of the Cumberland Mountains are found thick layers of Epsom Salts, which only require purification to render it suitable for the market. Its commercial value, as well as that of Alum, Copperas, and Saltpetre, is sufficiently important to invite attention to the great abundance of materials found in our State for their manufacture.

4. *Iron Ore*.—The entire silicious stratum affords extensive banks of iron ores, which, with our coal, might be justly termed the wealth of Tennessee. The variety which is found to be the richest and best is the hydrous peroxide of iron—though there are several other varieties, some of which are rejected entirely.

In conclusion, I will merely allude to the beds of clay—in some places of a white color, and said to produce excellent *fire brick*—to the millstones of our uplands—and last, to the great number and variety of medicinal springs, chalybeate, sulphur and carbonated, which issue forth from these different groups.

[TO BE CONCLUDED IN THE NEXT NO.]

RECORD OF THE MEDICAL SCIENCES.

PRACTICAL MEDICINE AND SURGERY.

1. *Has Medical Science Lengthened Human Life?*

[Dr. S. G. Armor, of Cleveland, Ohio, is the author of a Prize Essay which was read before the Ohio State Medical Society at its annual meeting in June last. The Essay is on the "Zymotic Theory of Essential Fevers, and other disordered conditions of the Blood." In an Appendix to it, the author treats of the progress which has been made in medical science, and the influence it has had upon the mean duration of human life, and extracts the following statistics bearing upon this point from the excellent address delivered by Professor Alonzo Clark, in Albany, before the New York State Medical Society, at its last annual meeting. As Dr. Clark's address was not particularly alluded to by us at the time of its publication, we take pleasure now in copying into our pages, from the Ohio Prize Essay, his valuable contribution to vital statistics.]

Professor Clark first introduces the testimony of the great English historian, and proves by an unanswerable array of testimony, that medical science *has* greatly lengthened human life.

Macaulay, in his history of England, says :—"The term of human life has been lengthened in the whole kingdom, and especially in the towns. In the year 1685, not accounted a sickly year, more than one in twenty of the inhabitants of the capital died ; at present only one in forty dies annually. The difference between London of the 19th century, and the London of the 17th century, is greater than the difference between London in ordinary years, and London in the cholera."

Dr. Simpson, in his paper "On the Statistics of Surgery," states that in 1786 the yearly rate of mortality in the whole of England and Wales was *one in forty-two* ; in 1801, it was *one in forty-seven*, and in 1831, it had diminished to *one in forty-eight*, showing a reduction of annual deaths by 28 per cent. in the short period of half a century.—*Dublin Review*, vol. 7, p. 97.

These statements correspond with deductions from the English parish registry returns, made by a careful student of statistics and distinguished writer of our own country, published in the 13th volume of the American Journal of Medical Sciences. This registration, however is incomplete, and the American writer points out the sources of this defect. It is not necessary to specify them here. They are believed to be constant, and nearly equal for the whole period ; so that while the proportion of deaths to survivors is rated too low, the rating is equally too low for all portions of the half century. The error, therefore, does not materially invalidate the

great conclusion to which Dr. Simpson's figures would lead us. Marshall, in the publication of the bills of mortality, preserved in London since 1629, has given us the fullest confirmation of this gratifying fact, so far as this largest of towns can furnish it. Finlaison recognizes it as an important element in the construction of his celebrated Annuity Tables.

Mr. Milne, in making up his well-known *Carlisle* Life Tables, ascertained with the greatest care the deaths in that town and its vicinity, for the nine years following 1778; they were in proportion of 1 to 39.99 of the population of each year. It is ascertained with equal certainty (see Registrar General's Reports) that for the seven years ending with 1844, the deaths in this same Carlisle and its vicinity were annually 1 in 52.6. The interval between these two periods is just 50 years, and the reduction of mortality is 22 per cent.

The deaths in the town of Northampton were carefully studied during the latter part of the last century, and compared with the population. Dr. Price made this comparison the basis of some of his life tables. Here we have another unquestionable increase in the duration of life. The Registrar General, in his Report for 1847, says of this town: "In the last century, the people here lived about 30; now they live 37 years ($37\frac{1}{2}$). In earlier times their life must have been shorter. Then the community had no skillful physician, no surgeon—an infirmary, a dispensary, a lunatic asylum, and from 20 to 30 educated medical men, an evidence that more skill is now devoted to the preservation of life." Thus it appears that although this Northampton is even now one of the least healthful of all the smaller towns of England, yet that the decrement of deaths there is equal to 23 per cent.

These statements, I believe, exhaust the reliable statistics of England, bearing on the subject in which we are here interested, excepting only those that relate to annuitants and the insured.

The inquiry now naturally arises, Is this the end? Can the life of man be still further prolonged? We would fain hope that its maximum duration is not yet attained, and this hope is not without encouragement. We learn from the Registrar General's Report, that the mortality of England was slowly but steadily diminishing, during the eight years from 1838 to 1846. The figures that represent its ratio to the living, are for the several years respectively as follows, viz: 2.24, 2.187, 2.29, 2.160, 2.167, 2.12, and 2.082 per cent. But whatever view we are compelled to take of the future, who can doubt the cheering evidences of progress in the recent past?—substantial progress. I will adopt the suggestion of the Registrar General, and assume for the present, what I hope soon to prove, that what man desires most of all earthly things, is secured to him in fair measure, by the unobtrusive, unnoticed labors of our ill-rewarded profession. In the lapse of half a century, 28 persons, or if you prefer the lower estimate, 22 persons saved alive out of every hundred, all of whom must previously have perished! What are all the other improvements of the same period, compared with this? What, though we boast that steam has been made the day-laborer for the nations; what, though the steamship equals in magnificence the fairy palace of fiction, and skims the water with its wooden wings, as does a bird the air; what, though the iron ways encircle the

earth, and daily exhibit, as I believe they do, the highest reach of human power, a perpetual wonder ; what, though the electric fluid has become our news-carrier ; what, though the arts have improved so as to cheapen many of the necessities of life to half their original cost ! Neither of these, nay, all combined, can hardly single out the life that they have saved.

Again, France exhibits to us very strikingly the great results of professional labors. M. Charles Dupin, whose name is a sufficient guarantee for his statements, lately read before the Institute a paper on the vital statistics of that country, showing that from 1776 to 1843 (67 years,) the duration of life had been increasing at the average rate of 52 days annually, so that the total gain in 2-3 of a century amounted to $9\frac{1}{2}$ years ; and that in no year of that period, whether during the Republic, the Consulate or the Empire, did the annual increase fall below 19 days. What a fact have we here ! Even during that dread period of French history in which the death angel assumed the cap of liberty, and taxed the arts for new inventions to destroy life, and during the succeeding 13 years in which the war spirit reaped an almost unprecedented harvest, when science and arts vied with each other in contributing to this work of slaughter, and the history of Europe is but little more than the history of battles ; during all this period, medicine alone lent all its energies to the preservation of life. How striking the contrast ! How proud the success ! In France, that glutted the guillotine with the blood of her sons, and strewed every battlefield in Europe thick with their dead bodies ; even in death-smitten France, medicine saved, in 20 years, more than war and the delirious spirit of freedom could destroy.

But we shall be told, doubtless, that we are claiming for our profession more than we have any fair right to ; that society has improved in all its relations, and that to these improvements are due, in a fair proportion, the results which have been quoted. Let us consider for a little in what these improvements consist. Within 150 years, the arts have reduced the cost of many of the necessities of life ; but then the necessities of life have been actually multiplied by this same process of reduction, and food, the first of necessities, has not been cheapened ; its money price is indeed less, but its labor cost is greater. The home-condition of the laborer, (I speak of the countries from which I have drawn statistics) is more miserable than it was a century and a half ago. The rich have, it is true, become richer, but the poor have at the same time become poorer ; in other words, wealth has greatly increased, but it is not distributed in other countries as it is in our own. Who that has visited the homes of labor in England or France, will believe that the over-crowded, half-clad, half-fed population of a manufacturing town can be compared in domestic comfort with the laboring classes of other times, when the honest house-wife wrought out of the noisy wheel and from the loom the honest, warm, abundant homespun ; when the labors of the field brought to a country, not over populated, abundance of food ; when labor had not yet destroyed its compensation by rivalry with itself ; when the infirm poor were not yet so numerous that the benevolent rich could not look after them, and supply their wants. Who will believe that the crowded, hot, dusty, ill-ventilated manufactory can contribute to health like the open field, where men once

labored, with its fresh breeze and its sunshine. The better and middle classes have always been long lived. *Their* home condition may have been improved in the period referred to ; but have they gained as much as the many, the laborers, have lost ? I confidently believe that so far from there being a betterment in the social condition of Europe within 150 years, when a fair balance is struck it will be found that things personal contribute less than formerly to prolong life. Still it cannot be denied that in the general improvement of society something has been done for this great object. It is in cities chiefly that these important changes are seen ; and even there they are *confined* mostly to the rich, or at best are brought by the rich only to the doors of the poor, beyond which they rarely strive to pass. Staying as far as possible the spread of pestilence ; improved ventilation in the widening of streets, and in the construction of dwellings and public buildings ; diminishing the causes of disease by the removal of filth, and by a judicious drainage ; and the encouragement of personal cleanliness, by making water abundant and bathing cheap ; these no one will deny, are benefits, solid benefits. But *all that is valuable in them is based on principles elaborated and promulgated by the medical profession.* Even the details of the plans by which the public have realized these benefits, have in many instances been prescribed by the profession. There is an implied recognition of this fact, in the name "medical police" which is given to the department that governs most of these things, and still more in the fact that their supervision is in a considerable degree entrusted to an "inspector" chosen from the medical profession. These, then, are medical facts popularized, as are a thousand other medical facts in hygiene and the laws of regimen. May we not, then, freely imparting as we do to the public the advantages derivable from these things ; may we not ask to be remembered as the authors of the doctrine from which these benefits flow.

There is another view of this subject. We hear enumerated among the causes of *tubercular consumption*, imperfect protection either by house or clothing, against the vicissitudes of weather ; scanty and innutritious food ; imperfect ventilation ; vitiated air ; dwelling in dark, damp places ; indifference to personal cleanliness. When it is remembered that these are important points among the particulars in which it is claimed that society has so greatly improved, it will be expected that this formidable malady must gradually recede before the advancing improvements. But Sir James Clarke assures us (in his book on consumption) that this is not the case. He has carefully studied the London bills of mortality, making annual averages for periods of ten years, to avoid the influence of epidemics and accidental agencies ; and he finds that from 1700 to about 1830 there was no diminution in the frequency and the fatality of this disease, but rather that the *proportion of deaths from it has been increasing during that whole period.* At the same time this author fully confirms the statement already quoted from the History of England, by showing that the mortality from all diseases, consumption included, has diminished nearly one half, consumption excluded, more than one half. I need hardly add that the profession has never claimed great control over this affection ; and that during all the period here referred to, it was held to be incurable.

This statement favors a conviction that the advantages we have gained over disease are more in actual practice than in prevention and hygiene.

But we have facts more directly to my purpose: such as will show the physician's care of the sick, freed from all other agencies that are supposed to have influence in prolonging life; and comparing the results of that care, at different periods, our claims will be in no respect weakened.

Dr. Merriman deduces from the bills of mortality just referred to, the fullest evidence, that in the department in which he was so much distinguished, the most signal improvement has been made. In 1680, one in forty-four died while under the care of the medical attendant; within 50 years from that time, only one in seventy died under the same circumstances; in another term of 50 years, mortality was reduced to one in eighty-two; and in 40 years more (the period ending with 1820,) it had fallen as low as one in 107. Here is a condition in which knowledge and skill are left to work their way unhindered and unhelped. Hygiene has little to do with it; the improvements of society even less. It is nature and the doctor, and how has the doctor triumphed?—fifty-nine per cent. of such as must have died in the latter years of 1600, saved in the progress of above a century and a half! This is doing something to lift from the sex the heavy weight of the primal curse; and we challenge, in return for it, their kind regard.

Let us now bring our inquiry nearer home. The records of the New York Hospital, a medical charity supported from the treasury of the State, show the mortality, together with the number of patients treated annually since its foundation. The first 50 years of its existence end with 1842. If this term be divided into periods of ten years each, the progressive improvement is uninterrupted; so that while the relation of deaths to admissions in the first 15 years was one in 7 7-9, in the last 5 years it is one in 11 1-8. This is a gain of more than 30-100, or 31 saved alive out of every 100 that formerly would have died. Now here is little besides medical treatment. The growth of the city has not materially improved the site of this institution. The same building is now used that was used when it was opened, though others have been added. The wards were no more crowded through their early years than they were in 1842; the comfort of the patient has been equally cared for at both periods; and it is proper to give emphasis to the statement, that in this important result, vaccination has had no part. This inestimable discovery was made, it is true, early in this period of 50 years, but it could in no way have affected this Hospital, because smallpox has never been admitted into it since its foundation. What then have we here but improvement in the practice of medicine and surgery? And it cannot but be noticed, first, that the result here recorded equals, even exceeds, what is claimed in society at large, from all beneficial causes operating together; second, that this result, gained without the aid of vaccination, shows that, great as is the amount of good done by this discovery, it is far from being the only life-saving agency by which the world has been blessed in the past half century.

The important deductions here made from the statistics of the New York Hospital are sustained by similar facts as collected from the records of the Pennsylvania Hospital, Philadelphia. That institution was opened for the

reception of patients in 1752. Its first 90 years were completed, then, in 1842. During this period it received 39,290 patients, and lost of that number 4,120. I have not been able to obtain annual reports, but the deaths for the whole term of 90 years were one in $9\frac{1}{2}$ of all admitted, while in the last of these years it was only 1 in 11.87. This gives us the last year better than the whole by more than 19 per cent; an improvement we could only have been prepared for, after learning the striking facts substantiated by the fullest details from the New York Hospital.

From the statistics of the last century it appears that the number of patients admitted into the Pennsylvania Hospital, in the ten years ending with April, 1852, was 13,472; of whom 1056 died, making the deaths a little better than 1 in 12 $\frac{3}{4}$. Thus we have a gain in the last ten years, over the preceding 90, of more than 25 per cent.

In appreciating the value of these facts, it must be borne in mind that the physicians and surgeons to whom hospital duties are assigned, are but the representatives of their profession. They are the exponents, the public manifestation of its condition. What they do within the hospital walls, others are doing in private circles, each in his own proper sphere.

Is it not true, then, that medicine is the first of the progressive arts; and not first only, but incomparably above and beyond all others in the priceless benefits it has bestowed on man? Yet who has risen up to give it public thanks for its Herculean labors? Who has proposed to commemorate the vast achievement of prolonging the years of the life of man more than one fourth their former average, throughout civilized Europe and America, in the short period of half a century?

When a great canal or railroad is completed, the air is rent with clamors. Men's voices are inadequate to express their joy, and cannons thunder forth their glad congratulations. Orators speak of "the marriage of mighty waters;" and men, as they meet in the street, say, the great work is accomplished. Well, is it not better thus?—for what celebration can adequately commemorate these triumphs of medicine! What monument can typify their greatness? Yet we have a right to demand a fair estimate of the value of our profession to society, and an honest acknowledgment of what it has done for the well being of man. Grant us this, and, by the blessing of God, we will raise our own monument; it shall be the armies of living men our hands can rescue from the grave.—*Boston Medical and Surgical Journal*.

CHEMISTRY AND PHARMACY.—The usual matter under this head has not been prepared for the present number, but will be furnished regularly hereafter.

MEDICO-DENTAL SCIENCE.

NOTES OF THE PROGRESS OF DENTAL SURGERY.

[In aiming to present a brief view of the progress of this branch of Medicine, we only propose reviewing such subjects as seem to be of mutual interest to the medical and dental professions—in short, a record of *Medico-Dental Science*. Thus, the scope and design of this Journal do not contemplate subjects relating to the various manipulations in mechanical dentistry, nor details of the different modes of performing operations which are confined altogether to dental practitioners. The journals devoted exclusively to this specialty treat of these things in full; some one or more of which ought to be taken by every practical dentist, no matter how well supplied with those devoted to general medicine. But physiological and surgical principles pertaining to such operations, will receive due attention.

It is not intended as a general thing to republish articles, of any considerable length, entire, but only to present their substance, or the points of peculiar interest and novelty in them. In making Abstracts of articles, the words of the authors will be preserved as nearly as practicable, subject, however, to abridgment should the same fact or idea appear susceptible of more concise expression. Passages or sentences given entire, will be properly quoted. Our own remarks or comments are enclosed in brackets.

B. W.]

2.—*Effects of Diseased Teeth and Gums on the General System.*

[The *Western Lancet* for October, 1853, contains a communication by Dr. J. Richardson, Dentist, of Cincinnati, earnestly directing the attention of the medical profession to this subject, and illustrating its importance by a variety of cases drawn from standard authorities. We quote the last portion of his preliminary remarks:]

“ We would only add in concluding these general remarks, that if the practical truths already elicited on this subject, meagre as they are, and limited as they necessarily have been in their practical application to the necessities of men, demonstrate as they manifestly seem to do, the *insufficiency* of pathological views, which prevail in regard to the intimate sympathies existing between diseased teeth and other remote parts of the organism; may we not, with some assurance, anticipate a vast fund of results, practical and scientific, not now dreamed of in our philosophy, when these truths shall be better understood, and greatly augmented by more enlarged inquiry and extended observation? This ‘consummation devoutly to be wished,’ will be greatly hastened when the medical profession at large shall conceive it as important to direct their attention to the condition of the teeth and gums, as structures capable of furnishing valuable curative indications, with the same minute care and diligence they would finger the pulse or inspect the tongue; and when medical authors, and teachers in

our medical schools, shall impress upon the minds of readers and students the important truth, that teeth are something more than ornamental appendages or excrescences,—that they are *living* tissues; inseparable links in the great chain of vital functions, ministering to the harmony of those functions when unimpaired, endangering the integrity and completeness of the whole when broken or corrupted.”

3.—*Spontaneous Inflammation of the Alveolo-dental Membrane.*

Dr. Harris in the *Jour. Dent. Science* for Oct., relates a singularly interesting case of this kind. A lady, aged 35, of Scrofulous habit, suffered repeated attacks of pain in her teeth during about two years. Her teeth being comparatively free from caries, with no exposure of the pulps, medical treatment was advised, but although perseveringly tried, failed in any instance to produce relief, which was only afforded by the extraction of the offending tooth, and then only temporarily; until tooth after tooth, attacked in the same way, and manifesting the same train of symptoms, was extracted, to the number of twenty-six, in little more than two years. The roots of all the teeth upon extraction presented the same appearance, being “covered with thin blood of a dark purple color, which had seemingly been effused through the coats of the small capillary arteries distributed upon the periosteum.” The inflammation at no time extended to the gums, and the pulps were free from it, the disease being apparently confined altogether to the alveolus, or rather to the alveolo-dental membrane, and dependent, as Dr. Harris inferred, upon a preternatural irritability of this membrane, arising from the peculiar cachectic habit of the patient.

4.—*Inflammation of the Dentine or Tooth-Bone.*

Dr. E. Townsend, in the *Dental News Letter* for April and July, (1853), makes some interesting observations in treating upon this subject:

“It is (he remarks) a curious subject for speculation and hypothesis, to examine the analogy existing between the inflammation of dentine, that excessive tenderness, which we find in the fibrilla of nerves, so far removed from the pulp and main trunk from which they radiate, and the same in other and more highly organized parts of the body. That this, in the tooth, is inflammation of its structure, is, I believe, now generally conceded.”

Of the characteristics of inflammation, heat, swelling, redness and pain, he observes, that the apparent absence of swelling and redness in the solid structures, bones, tendons, and teeth, is owing to the unyielding form of their organization, which does not admit of distention in their bulk from engorgement of the blood-vessels, nor of sufficient dilatation of the capillaries to receive the red blood-globules. Nor is heat discernable in so small a cavity and so slow a process of inflammation as that of caries in a tooth.

The carious cavity of a tooth may be sensitive to heat or cold, or to the touch of foreign bodies, when distant from the pulp and separated from it by healthy dentine. Upon removing the diseased portion the sound surface may be entirely or comparatively insensible. “The operation of removing

the decayed parts must cut off the vessels and filaments of nerve in which the inflammation and pain previously existed." It is simply an amputation on a small scale. Thus a bone, inflamed at its outer extremity, may be cut through in a healthy part without pain (to the bone), the surface remaining free from inflammation. The same is true of tendons.—These textures are equally living parts with the more complex structures, though they do not evince their vitality by all the signs the latter afford.

He refers to the power of *twisting*, to elicit pain in tendons, otherwise insensible, and ascribes this to the screw-like energy of the twist in compressing the minutest filament. "The fact that twisting a tendon produces pain in it, is good evidence that there are fibrillæ of nerves in parts which cannot be detected by any known means of dissection or examination. Pain in inflamed bone, and inflamed dentine, must be allowed to prove the same point."

The dentine is most sensitive next to the enamel—"at the very extremity then of the nervous life of the tooth, at the extremities or ends of the nervous fibres." This accords with a general law. In arteries, nutrition is carried on at their ultimate ramifications. The special power of nerves is not in their trunks—which are simply conduits—but in their expanded and ramified extremities. The large branches are not only destitute of special functions but they have comparatively little common sensibility. Thus in surgical operations the principle pain is felt in the skin where the extreme nerve-fibrils are found.

The sensible endowments of organs are accommodated to their functions. The brain is comparatively insensible to wounds and mutilations, but in certain diseases becomes very painful. The eyeball, and the glottis are sensitive to foreign bodies, and the pylorus cognizant of indigestible food; this is for the protection of the eye, lungs or stomach. But the nails, cuticle, &c., are insensible. The bones are not painful to weight or pressure, but when attacked by such violence as fractures and erosions, they manifest all the sensitiveness of any other part of the body. "The teeth are under the same law; when disease invades them, which tends to their destruction, pain is felt, not only in the deep-seated pulp, but at the very surface of the dentine, as near the exposed face of the tooth as the enamel permits."

Dr. T. advances some interesting speculations to show (which indeed seems to be the main drift of his paper,) that though a tooth have its pulp removed, it may still derive through the vessels reaching it externally, from its periosteum, sufficient nutrition and vitality to maintain it in health, and for all ordinary purposes, "as good as ever only deprived of its sense of feeling."

B. W.

EDITORIAL NOTICES.

Our readers will perceive that we have made a change in the arrangement of matter in our new volume, placing the original articles together in the first part, instead of having them interspersed through the body of the work under the several departments; the selections and abstracts being inserted in the second part under their appropriate heads. The editorial management remains the same. Original communications are submitted to the editors having the supervision of those departments to which they relate, and each editor furnishes, and is responsible for, the selections or abstracts which appear in his special department.

The original matter of the Journal is put in more conspicuous type, while the Editorial is reduced in size. The work has also been enlarged from 72 to 76 pages each number. As its circulation increases we propose to limit the number of advertisements and fill the pages occupied by them with reading matter.—However, as was stated in the preceding number, we are not disposed to make extravagant promises, but refer to the past as a guarantee for the future.

EDS.

General Therapeutics and Materia Medica, adapted for a Medical Text-Book. By ROBLEY DUNGLISON, M. D., Prof. of Institutes of Medicine in Jefferson Medical College of Philadelphia, &c., &c. With 187 illustrations. Fifth Edition, Revised and Improved. In two volumes. Philadelphia: BLANCHARD & LEA. 1853.

The revisal and re-publication of new editions of the Pharmacopœias of the United States, and of London and Dublin, rendered it necessary for the talented author of the treatises before us to revise and enlarge his already popular work. Not only are the therapeutic application of the various articles of the Materia Medica fully discussed, but in this edition our author has dwelt more at length on the sensible properties, by which the physician may be enabled to judge of the various articles from his own observation. So short is the time allotted to courses of medical instruction, that unless students learn in the office the natural history of medicinal substances, especially with reference to their appearance in the pure state, and the mode of detecting them when adulterated, throughout their whole medical career they will grope their way as much in the dark as if they were prescribing *nostrums*. For what is the difference between prescribing a *medicine* of whose natural properties we are ignorant, and a *nostrum* of whose ingredients we know nothing. In the one as much as

in the other, they judge only of its purity by its effect. The physician who should *dare* to practice without such a knowledge is as much a quack as he who prescribes patent nostrums.

Medical students fail not to make Prof. Dunglison's work a Text-Book—yes more, a table companion.

For sale by W. T. BERRY & Co.

R. O. C.

The Maternal Management of Children in Health and Disease. By THOMAS BULL, M. D., Member of the Royal College of Physicians. Philadelphia: LINDSAY & BLAKISTON. 1853.—pp. 424.

We take this occasion to say that the series of articles began in the volume of 1853—on the Health and Mortality of Nashville as drawn from the Cemetery Reports, will be concluded in the March No. We have been surprised at the results of these statistics. In reference to the mortality of children between birth and 10 years of age, we have ascertained that it consists in one-half of the entire mortality of the city—that one child in four and a half dies within a year after birth, and one in three before the completion of the fifth year. We have also been surprised at the great number of still-born children. The probable causes of this great mortality, and the best means of removing them founds the topic of the very interesting little manual before us. We wish it were in the hands of every mother in the land, for we are assured, that its perusal would have a beneficial effect.

For sale by W. T. BERRY & Co.

R. O. C.

The Medical Formulary: Being a Collection of Prescriptions, &c. By BENJAMIN ELLIS, M. D., Prof. of Mat. Med. and Pharm., in Philadelphia College of Pharmacy. Tenth Edition. Revised and much extended. By ROBERT P. THOMAS, M. D., Prof. of Mat. Med. and Pharm., &c. Philadelphia: Blanchard & Lea. 1854.

This highly popular and very copious formulary has now passed through its *tenth* edition, which fact of itself speaks loudly in its praise. While we would not advise our young medical friends to acquire the art of prescribing by rote, yet we are confident, that the consultation of the "Medical Formulary" will assist materially in the art of compounding, as well as in the tact of writing compatible prescriptions. We have been a druggist, and have had something to do in the way of compounding prescriptions for physicians, and we have been struck with the want of system, and the want of a knowledge of "incompatibles" which many of the prescriptions have evinced. The art of prescribing is as important as the art of amputating.

and more so ; for while one will wish your services as a surgeon, hundreds will want you to cure them of a fever or a disease of the lungs. And for this reason, we advocate strenuously *specialities in medicine*. The surgeon and the obstetrician and the medical practitioner are as far removed from each other as they are from the prescriptionist or pharmacist, or he from them. To our medical practitioners and to our pharmacutists, then, we would cheerfully recommend Ellis' Medical Formulary, and by all means the last edition.

For sale by W. T. BERRY & Co.

R. O. C.



Chemistry and Metalurgy as Applied to the Study and Practice of Dental Surgery. By A. SNOWDEN PIGGOTT, M. D., late Professor of Anatomy and Physiology in the University of Baltimore. With numerous Illustrations. 8vo. pp. 516. Philadelphia : LINDSAY & BLAKISTON. 1854. (From the Publishers, through F. Hagan, wholesale and retail dealer in Books, Paper and Stationery, Market Street, Nashville, Tenn.)

This work will no doubt be hailed with pleasure by the dental profession. Its appearance is opportune, at a time when a need of more extended scientific research, particularly in Chemistry, as an introduction or aid to practice, is generally conceded. The author has, he says, "endeavored to make it both a manual for the practical man and a text book for students." And as such it must prove an exceedingly valuable accession to our standard dental literature.

The first part, comprising nearly one-third of the work, is devoted to the Principles of Animal Chemistry. It then treats of Digestion in general, and this is followed by several chapters on the Chemistry of the Mouth—the teeth, saliva, its morbid changes, mucus, and salivary calculus. The remaining half of the volume is taken up with the Chemistry and Metalurgy of Metals and Earths used in dentistry, in which is embodied and methodically arranged a large amount of practical details and statistical information of great value to the dentist.

Dr. Piggott, eminently qualified in what relates to the scientific part of his work, has in the practical department availed himself of the suggestions of experienced and reliable operators.

Although it would be gratifying to see members of our own profession producing works on such collateral branches, as they may be called for, (which, what but our contracted system of education has prevented?) yet we gladly welcome any contributions of the kind which come from the general profession. Indeed, too much credit cannot be accorded to physicians of high attainments, who have evinced sufficient devotion to the interests of this youthful speciality to devote their talents and labors in supplying the

deficiencies still existing in consequence of our own inability or delinquencies. A few bright examples have thus rendered themselves worthy of lasting honor, and among them Dr. Piggot, in the work before us, has erected a monument in the midst of our profession which will long be looked upon with grateful recollections.

The enterprising and extensive medical publishers,—among the first in getting out works of value in every branch of Medicine, and foremost in those relating to Dental Science,—deserve great credit for producing the work in so handsome and substantial style of execution. B. W.

A Treatise on the Venereal Disease. By JOHN HUNTER, F. R. S. With copious additions. By Dr. PHILLIP RICORD Surgeon of the Hospital Du Midi, Paris, &c. Edited, with Notes, By FREEMAN J. BUMSTEAD, M. D., Physician to the North Western Dispensary, New York. pp. 520. Philadelphia: Blanchard & Lea. 1853.

An attempt on our part to commend this truly valuable work to the notice of the Profession would seem superfluous. We take it for granted as a matter of course, that every practitioner in city, town and country will procure a copy at once. For sale by Messrs. Wm. T. Berry & Co., of this city. J. W. K.

A Manual of Obstetrics. By THOMAS F. COCK, M. D., Physician to the Lying-in Asylum, Physician to Bellevue Hospital, &c. New York: Samuel S. & Wm. Wood, 261 Pearl street. 1853.

This is a small volume of 238 pp., designed as a hand-book for students attending lectures on this department. The author has displayed an extensive knowledge of his subject, and evinced judgment in arranging and condensing in a work of moderate dimensions, a concise view of the various points of interest,—“a skeleton collection of facts,” to be kept in mind, the better to prepare the student to appreciate the lectures, and the more elaborate treatises, from which alone “he can learn *reasons* for practice.”

We commend the book to the student as a useful companion in the lecture room and examining class; and to the young practitioner as a valuable aid in his moments of emergency, to refresh his memory with things indispensable to be remembered. For sale by W. T. Berry & Co., Public Square, Nashville. J. W. K.

The Quack Festival, or Dance of Bitches. An Address delivered (by request) before the Medical Society of the University of Nashville. By A Western Medical Editor.

We notice the appearance of this, to draw attention to a subject of which

it is high time that professional journals take cognizance, viz: the influences operative in forming the medical morals of the day.—The “Address” is a poem, written in doggerel, and the title might suggest something of its character. Suffice to say, that it is chiefly characteristic for indecent expression and the portrayal of lascivious scenery. In this, it is perhaps, unparalleled by any thing that ever preceded it upon a similar occasion. (As an instance, we might refer to verse at 790.) The gross obscenity, the lewd pictures, the filthy imagery herein displayed might suffice to startle the grey-haired in venality. Its influence upon the minds of young medical students may be easily imagined.—Disagreeable as is the task, the effrontery to issue such a production demands comment. It is true the author says the “poem though PRINTED is not PUBLISHED;” but we cannot see the drift for such nice discrimination unless it be merely to evade the law which prohibits the “*publication* and sale of obscene books and pictures.”

The production is *printed*, at least,—bearing the name, and thus seemingly the *sanction*, of the “Nashville University”—and placed in the hands of young medical students about to go abroad as practitioners. For what purpose? As a “Guide at the Bedside”?—of their female patients?—Or to *cherish* the low and prurient instincts pandered to by its recital!—And can it be possible, that PROFESSOR BOWLING, the expounder of Medical Ethics, a teacher of Medicine in its *purity*, the head and front of our Medical College which claims to be a model of its kind, the editor of a journal “having inscribed upon it, to honorable Medicine,” the Committee of the American Medical Association on Professional Literature in Tennessee—is it possible that he should not only write, but yield to “importunities” (of the “entire medical class” even,) to make public a production more fitted to represent the vilest brothel, than an institution of medical learning—demoralizing to students, a stigma to our College, a disgrace to the profession!

We love to magnify the medical profession. We honor its worthy members. We deprecate every thing that tends to lessen its dignity and respectability. We have, however, reason to believe that immorality and licentiousness are on the increase in its ranks. Whence the fountain of this? Is it not to some extent in our Medical Schools—where many an untutored mind receives its first moulding in morality as well as knowledge?—We have heard of scenes being enacted in these *Schools* (?) abroad, which might “make the devil blush.” It may be exaggerated. We hope so. But if *our* College be the “model” of excellence, and from *its* halls are allowed to be dispensed obscene Addresses throughout the land (by

way of "amusing" students) then we greatly fear the worst is not told, and that Medical Schools are at this day exerting a demoralizing influence upon the profession which will *tell* fearfully upon future times. It is high time that the profession, if it would reclaim the respect and dignity which are *passing away*, should look into these things and apply the remedy.

B. W.

The Peninsular Journal of Medicine and the Collateral Sciences. Edited by E. ANDREWS, A. M., M. D., Demonstrator of Anatomy in the University of Michigan. Ann Arbor, Mich.

"This is a new candidate for public patronage,"—as some might be ready to cry out under the startling captions of "More Medical Journals," "Another," and "STILL ANOTHER!" etc. It has, however, reached its 5th No., and shows indications of ability to stand on its legs. Now, we hope we are not of that class whom professional etiquette can scarcely restrain from "showing fight" towards every new competitor for the honors and emoluments (?) of journalism; nor would we be ranked with those who are swift to court favors from more influential quarters. We do not think the "opinions" of the Medical "press" should be bestowed indiscriminately much less be governed by prejudice or favoritism.

Howbeit, in our opinion, the "Peninsular Journal" bears the stamp of merit. There is much taste and judgment in its arrangement, and its articles are worth perusal. Its editorials, particularly, are sensible and spirited. There is, also, what is less common, much industry and discrimination evinced in its selected matter: Merits which, though perhaps not at once duly appreciated amid the din of more noisy periodicals—whose uproar, contentions and Buncomb sometimes pass current for "ability"—are yet, in the end, very apt to win from the profession the high approval sought. We wish the Journal the success it deserves.

B. W.

The following publications have been received:

Transactions of the Medical Society of Pennsylvania.

The Prescriber's Pharmacopœa, &c. Edited by T. F. Cock, M. D. New York: S. S. & W. Wood. (From the Publishers.)

Prize Essay. On the Use and Abuse of Alcoholic Liquors. By W. B. Carpenter, M. D. Philadelphia: Blanchard & Lea. (From the Publishers through Messrs. Toon & Rutland.)

Report on the Epidemics of Tennessee and Kentucky, by W. L. Sutton, M. D.

Also, several Addresses, &c. and some new exchanges, which will be referred to in another number.

A notice has just been handed in with reference to the Seventh Annual Meeting of the American Medical Association, to be held in the city of St. Louis, on Tuesday, May 2nd, 1854, which will be copied in our next.

THE
SOUTHERN JOURNAL
OF THE
MEDICAL AND PHYSICAL SCIENCES.

MARCH, 1854.

ORIGINAL ARTICLES.

ART. VII.—GEOLOGY OF TENNESSEE.

By RICHARD O. CURREY, A. M. M. D.

With a Map.

(Continued from page 61.)

COAL MEASURES.

No subject has caused greater solicitude to English capitalists, than the *possibility* that at no very distant day the coal fields of their island home would be exhausted. So rapidly has the consumption of this mineral increased for the last few years, both from the increase of population, and the extended application of steam, that many of the mines have already failed. Some of the most scientific Geologists and intelligent miners were commissioned by Government to investigate this subject, and, though they differ as to the probable length of time that it will require to completely exhaust the supply, they all agree that it is an event which must sooner or later ensue. It is true that generations may pass before it occurs, but like a wise government, there was an immediate prohibition put upon the destruction of the waste coal at the mouths of the pits, and a tax levied on its exportation. The result of such a catastrophe is more easily imagined than described.—The thousands of busy hands now engaged with her looms and spindles, and anvils, and rollers, as well as the millions of active capital employed in keeping them in motion, will be driven elsewhere ere such an event happens, and who cannot see in the departure of these, the fading of the glory of the English kingdom, and the loss of her power. This is a forcible illustration of the value of this single mineral. And while even the prospect of a failure strikes English hearts with ter-

ror, may we not anticipate a bright future from the developments of this mineral in our country. From Maine to Texas, there is scarcely a State that does not possess to some extent portions of a coal field, while in many it constitutes the principal formation.

In the Massachusetts and Rhode Island coal fields, there is estimated to be about 500 square miles. In the Appalachian, extending from New York, through Pennsylvania into Ohio, through Virginia, Kentucky and Tennessee, and terminating near Tuscaloosa, Alabama, being 800 miles in length with an average width of 180 miles, and covering an area of more than 100,000 square miles, there are contained at a low estimate one million of million tons of bituminous coal. In the Ohio River coal field, we have another immense basin, embracing nearly the whole of Illinois, Southern part of Indiana, and extending across the Ohio into Kentucky; the entire area being not less than 55,000 square miles. In Michigan, including about two thirds of the State, another field has been explored of 12,000 square miles. In Missouri and Iowa, is still another of 50,000; while Arkansas and Texas each contain important fields. So that supposing these 250,000 square miles of coal deposits to have an average thickness of 50 feet—we have no less than *three and a half millions of cubic miles* of coal in the Union.

Two classes of coal are found in our country, the bituminous and the *non-bituminous* or anthracite. The latter class is found only to a limited extent, being the kind obtained in Eastern Pennsylvania, and is said to have been found in East Tennessee. Though these two classes possess striking marks of difference, yet they are to be referred to the same origin. The same fossil plants, have been found in each, and as anthracite is coal without the bitumen, there has been observed a gradual increase in this property towards the Western limit of the Appalachian field. The anthracite has been debituminized by its contiguity to the primordial rocks, and to its having been subjected to a great pressure during its formation. It is similar to, and is, in fact, natural coke.

The Tennessee Coal field, being part of the Appalachian, is embraced within the limits of the counties of Claiborne, Anderson, Morgan, Fentress, Campbell, Overton, Grundy, Van Buren, White, Franklin, Bledsoe, Marion, Hamilton, and Rhea, composing the range of Cumberland Mountains. These mountains are again subdivided, with local names attached.

The Eastern base of these mountains, so far as I have ascertained, rest upon the inclined strata of East Tennessee, though in some places there intervenes a table land of the silicious stratum or old red sandstone. As we cross the moun-

tains and in passing through the Sequatchee Valley, we notice on its eastern side the inclined strata of limestones peculiar to East Tennessee, while across the Sequatchee River and on the western side a hard white limestone is found, lying horizontally and overlapping the other strata. This peculiarity is observable throughout this rich Valley—being traced as far up as Crab Orchard. Here the limestone ledges present a striking contrast with the general character of the surrounding country, and may be regarded as a wise provision in the midst of these sandstones and sandy soils. This limestone possesses a peculiar structure, being composed of an infinite number of egg-like fossils—hence has been termed the *Oolitic* limestone. But as it possesses another fossil, the *pentremite* in as great abundance, it is also called the *pentremital* limestone.

This limestone is also well displayed all along the western declivity of the mountains, intervening between the shales and sandstones of the coal measures, and the old red sandstone or Devonian system below. Its absence on the eastern, and its unfailing presence on the western declivity, is a striking peculiarity. From this *pentremital* limestone to the summit of the mountains are included the coal measures. They consist of strata of coal, shale, sandstone and conglomerates alternating with each other, there being sometimes from four to six of such series in one elevation, but of varying thicknesses. While on the western declivity of these mountains, the coal occupies almost uniformly a horizontal position, on the eastern the entire strata of coal, shale, sandstone, &c., appear to have been disturbed in some places, being tilted up into an inclined position, while in others no such action appears to have taken place, as they retain the horizontal position.

As this is a subject of interest to our citizens, I have made an analysis of several specimens of coal placed in my hands by Messrs. McKee & McRoberts of this city, giving, also, other analyses made at different places by other persons.

The following is the per centum of each specimen:

LOCALITY.	CARBON.	VOLATILE MATTER.	ASHES.
1. Pittsburg,	55	38	7
2. Trade Water Ohio R.	69,05	21	9,95
3. Rock Spring, Ky.,	80,56	10	9,44
4. Ohio R. near Caseyville.	69,58	19	11,47
5. Addison's Br. Cum. Mt.	83,22	9	7,78
6. Anderson Co., E. Ten.,	82	10	7
7. Crow Creek,	77,70	14	8,30
8. Sewanee Mining Co.,	79,56	14,21	6,25
9. Kimbrow's, Roane Co.,	71	17	12
10. Gillenwaters, Rhea Co.,	69	14	17
11. Alabama, Tuscaloosa,	80,96	12,96	6

The analysis of No. 1 was obtained from Professor Johnson's Tables—Nos. 9 and 10 from Professor Troost's Reports, and No. 11 from Professor Tuomey's Report.—No. 5 is the variety of coal brought to this place by Messrs. McKee & McRoberts, and is of a compact structure, and possessing iridescent colors—No. 3 is from a new mine on Trade Water, Ky, 18 miles from the Ohio River.

Though it is known that the range of the Cumberland Mountains belongs to the coal measures, yet so little has been done for its actual exploration, that it is impossible to say where, in particular, coal is to be found. So important an element is it to become in our State welfare, that it is highly necessary that a thorough examination of this field should be made, with accurate analyses, accompanied with a special map, and sections of the entire region.

The opening of these banks, and the construction of railroads for its speedy and constant transmission to points, both East and West, would, in a few years, tell upon the industrial pursuits of our citizens. The construction of such a road as is contemplated in the Nashville and Knoxville Railroad, and especially if continued to the Mississippi River, would draw out from these rich store houses, treasures that would inspirit the loom and the anvil with new life, and accelerate the speed of the plough. This is a subject in which the whole State feels a deep interest, relating, as it does, to State aggrandizement and domestic comfort. Placed in juxtaposition with the iron and the copper, no one can fail to see what the results of their development would be. Not only would capital flow into the country, but population also; until the State would become the Keystone of the South, as Pennsylvania is of the North.

And for productiveness of soil, our rich alluvial lands in West Tennessee, our limestone basin in Middle Tennessee, and our sheltered and fertile valleys in East Tennessee, will yield to none. West Tennessee will be shown presently to possess an abundance of that excellent fertilizer, marl, for the renovation of our soils as they become exhausted. As an agricultural State, Tennessee only requires that the loom and the anvil shall be brought alongside of her ploughs, when she will take a position as commanding and as desirable as her sisters.

In these coal measures, good millstones can be obtained from the conglomerates, and grindstones from the sandstones; while the strata of reddish and of white clay would answer admirably for burning into fire brick and fire stones.

Our late Geologist found two specimens of silver ore in Caney Fork River. Further explorations may trace out the ori-

gin of these fragments. The fossil plants of this coal field are characteristic, consisting of ferns, lepidodendra, stigmaria, sigilaria, &c.

CRETACEOUS SYSTEM OF WEST TENNESSEE.

The Western District presents to our investigation a field entirely different from the other portions of the State. The formations peculiar to Middle Tennessee, pass to the west of the Tennessee River, and disappear under the West Tennessee strata. The line where this change takes place, varies in its distance from the river, averaging, however, about three miles, conforming to a certain degree of longitude. All the space between the river and the lines where the cretaceous strata first make their appearance, is a bottom land, and, when of sufficient width, admits of fertile fields, and occupying the foundation of this bottom or low land, are the limestone strata of Middle Tennessee, to which succeed the system which is now to engage our attention. These strata are called cretaceous, because among its members is included chalk, while the others also partake of that nature. There is, however, no chalk in the United States.

An examination of this system in our State reveals but a few of its members, yet they are of such importance as to render the district in which they are found, highly interesting, not only for the richness of its soil, and its agricultural facilities, but for the value which will, at no distant day, be attached to one of its beds, being the storehouse from whence will be obtained the material for the renovation of the soil of the surrounding country, and thereby prolong its capability for sustaining the population to come after us.

An inspection of the map will display a singular feature in the physical geography of West Tennessee. Two large rivers, whose currents flow in opposite directions, bound it on the east and west. There must consequently be an intermediate ridge of high lands, to separate the tributaries which flow to the one from those of the other. And from this high land there must be a gradual inclination to admit of a natural draining towards these two streams. It is noticed, therefore, that after crossing the Tennessee, a succession of high hills skirt along the western bank, at an average distance of three miles from the river. Ascending these elevations, the surface of the country appears to rise gradually higher for about 10 miles farther westward, from which point the slope is in an opposite direction—this is the dividing ridge. Beginning at the Mississippi line, it is found to extend into Kentucky, the pleasant country towns, Purdy, Lexington, Huntingdon and Paris,

being nearly on the summit of the ridge, and nearly equidistant from the Tennessee. While, therefore, the tributaries of the Tennessee are small, owing to the short distance they have to flow, with the exception of the Big Sandy, which, though rising in the same ridge, runs a parallel north course with the Tennessee, for nearly two-thirds of the width of the State, before it empties into that stream—those which rise on the western slope, after pursuing very serpentine courses, and gathering numerous streamlets into their channel, enter the Mississippi, some of them important navigable streams. Of these are the Wolf, the Loosahatchie, the Hatchie, the Forked Deer, and the Obion. So numerous are the small streams which become tributary to them, that the whole district presents the appearance of net-work—an arrangement highly conducive to its agricultural facilities. In pursuing a line of observation from the Tennessee River, at Reynoldsburg to Randolph, on the Mississippi, we note the following peculiarities. At the distance of about five miles from the Tennessee, there is observed a series of hills—not contiguous ridges skirting along the stream, each hill appearing isolated with rounded summits. Where washings have taken place, successive strata of blue marly limestone, white and red clay, and argillaceous sandstone, are exposed to view, cropping out from the western declivities, or between these rounded hills. The highest of these points is familiarly known as Pilot Knob, and is supposed to be at least 400 feet above the level of the river. These strata are seen to dip towards the north-west at an angle of 20 deg., lying upon the strata of the Tennessee River, and forming, by their inclination, a basin for the entire strata of West Tennessee. I will presently allude to an important fact relative to this underlying limestone stratum.

These limestone strata remain as the surface rock, except where covered by soil, until we reach Camden, where they disappear under a white silicious soil. To this point there is a gradual ascent, but to the west of it the surface of the country gradually slopes to the bluff at Big Sandy. This bank or bluff is neither so high nor so abrupt as that at the Tennessee River and is composed of the same white sandy soil. Passing over the low lands skirting this river, we observe, as we begin to ascend to the table land, a reddish clay soil, which readily crumbles, while above it we again come upon the white soil. Here, as on the east of the Big Sandy, it constitutes the surface soil of the elevations. Descending thence to Huntingdon, we notice the red soil which again disappears under the same white soil, on the elevated point near McLemorsville. Thus alternating, the high and table lands present the same

appearance to the Mississippi, except when covered over by the rich black alluvium of the river low lands. The successive strata passed through in sinking wells have exhibited the same white clay, red clay, blue marly limestone and white sand. These wells have been sunk to the depth of 100 feet. I do not know whether any attempts have been made to procure *Artesian wells*, but from the general structure of the country, the inclination of the strata, lying also upon the slightly inclined strata of Middle Tennessee, would seem to favor the idea that if borings were made to the depth of 4, 5, or 600 feet, a stratum would be reached from whence water would flow forth. The success of such an experiment would be of incalculable benefit to the country.

In the south-eastern counties we find more fully exposed to view the marly limestone and the green-sand strata. These strata form almost entirely the surface of McNairy, extending also into a portion of the adjoining counties, but soon disappear under the surface soil. Here is presented another feature in the physical geography of this district. Extending from the Mississippi to the Tennessee river, through the northern counties of the State of Mississippi, is an elevated ridge which divides the waters of that State from those of our district. Towards this ridge the strata of McNairy and Hardin counties point, thus giving to them a dip to the north-west—at the same angle of 20 degrees. It is easy to imagine therefore a basin existing in the north-west counties. And that is in the vicinity of New Madrid, the seat of volcanic action in 1812.

The seventh report of our geologist contains an account of the green-sand of McNairy county, which is said to be “in the form of small dark grains of the size of gunpowder, of an olive or blackish green color, not gritty, but easily crumbled between the fingers.” Sometimes these grains merely adhere together in lumps, but then again are cemented by the calcareous matter of the marl. The analysis of the green sand shows it to be a true silicate of potash, the principal ingredients being silica, potash, carbonate of lime, alumina, and protoxide of iron. The marl also contains an important proportion of carbonate of lime, the two deposits in this respect differing from the New Jersey marl. In these marls and green sands, *as well as in her productive soils*, consists the wealth of West Tennessee. The immediate spots where they form the surface rock, may be unproductive, but it is the unproductiveness of excessive fatness or richness. Marl or green sands only display their wonder-working properties when placed within the influence of organic matter. They are mineral

manures, and to promote the growth of vegetation there must be in the soil a proportion of decomposing vegetable matter with which it readily forms soluble compounds. Their beneficial effects are observable, as well in renovating worn out lands, as in tempering the quality of black alluvial soils. To the first, they will restore the proportion of lime and potash which an exhausting system of tillage had removed in the form of crops—to the second, they will serve to open the mass of vegetable matter, and, by forming new compounds, warm up the cold alluvium, and render it fit for cultivation. The system of agriculture generally pursued in new countries, is conducted, by reason of the natural productiveness of the soil, with so little reference to scientific principles, that it is only in those countries where a constant tillage has exhausted the soil of all its powers to produce, that the application of science shows what rich treasures nature has provided for the wants of man. Nothing is truer than that a succession or rotation of crops is necessary to preserve the energies of the soil; and that if the same production is raised for several years upon the same field, it gradually degenerates, at last yielding no fruit to reward the husbandman for his toil. The plant takes up from the soil only these ingredients adapted to its well being—but, like the impoverished animal, where these are wanting, it will feed upon those things which may be detrimental to its growth, and cause it to sicken and die. The analysis of soils shows what they are capable of producing, and enables the farmer to apply the appropriate fertilizer for rendering them productive in the highest degree.

The most important benefit which the science of Geology, in connection with chemical analysis, has bestowed upon man, are the developments which it has made in its application to agriculture. It is no less true that agriculture is the basis of wealth, than that the agriculturist is the benefactor of his race. What matters it how productive may be the mines of copper and zinc and iron, or how extensive and accessible the beds of coal, if the earth refuses to yield her fruits. The development of our mineral resources, will cause the population rapidly to increase, demanding in turn increased productions from the soil for their support. That we have fertile fields, none will doubt, but that these fields will of themselves continue so, none will hardly believe. But we have just described the provision made for remedying our soils when defective, in the rich green sand and marl of the western district. Here is labor for a *State Chemist*, as well as geologist. Will the present General Assembly provide for such a survey? We would, in the conclusion of this series of articles, point them to our granite hills in

the east, and urge them in consideration of the rich strata of ores found there, to provide for their development. I would point them to the upturned strata of East Tennessee, and urge them again in consideration of her marble, and alum, and hydraulic lime, and iron and zinc, to provide for their development. I would point them again to the Cumberland Mountains, and ask them if the rich coal deposits found there do not require and would not repay for their development. I would again point them to the country around the hill on which they are now assembled, and ask for a development of the resources of Middle Tennessee, as they exist in her soils, her extensive iron banks, her alum, slate, her millstone grit, and her limestone quarries. And I would again point them to her western soils, and ask for them the services of a Chemist and Geologist, that their true fertile character may be made known. Truly it may be said that we have "a land wherein thou mayest eat bread without scarceness—a land whose stones are iron, and out of whose hills thou mayest dig brass." These are the treasures of our State, and her prosperity depends upon their development.

To the foregoing sketch I subjoin the following analyses of mineral waters, ores, &c., in addition to those already published in the former numbers of this Journal:

MACON RED SULPHUR SPRINGS, MACON COUNTY, TENN.

Sp. Gr. 1.004.

Gaseous contents,

Sulphuretted Hydrogen,
Carbonic Acid.

Solid contents in a fluid pint,

Sulphate of Magnesia,	.	.	.	.	.	.	15	grs.
" Lime,	.	.	.	.	.	.	8	
Carbonate of Lime,	.	.	.	.	.	.	6	
" Magnesia,	.	.	.	.	.	.	3	
Chloride of Sodium,	.	.	.	.	.	.	26	
Protoxide of Iron,	.	.	.	.	.	.	1	
Silica	.	.	.	.	.	.	1.5	
Loss,	.	.	.	.	.	.	1.5	

62 grs.

MACON CHALYBEATE SPRING, MACON COUNTY, TENN.—(Same locality.)

Carbonic Acid,
Carbonate of Iron,
" Lime.

WAYLAND'S SPRING, NEAR FLORENCE, ALABAMA.

Specific Gravity 1.002.

In each Gallon,

Gaseous contents,

Carbonic Acid Gas, 346 cubic inches.

Solid contents,

Carbonate of Magnesia,	4 grs.
“ Soda,	1.2
Chloride of Sodium,	3.7
Protoxide of Iron,	3
Potash—a trace.	
Iodine,	1.8
Bromine—a trace.	
	<hr/>
	13.7grs.

Properties.—*Alterative, tonic, and diuretic*—useful in glandular and cutaneous diseases; in enfeebled states of the system, and in affections of the digestive organs.

LEAD ORE—MARION COUNTY, TENNESSEE.

Sulphur,	22
Lead,	78
Silver—a trace.	
	<hr/>
	100

The locality from which this specimen was obtained, is said to be very interesting. The vein of lead ore is said to be cropping out for more than a mile on the side of a creek, and is of considerable thickness. Large masses are said to be lying detached on the ground. From these representations, and from the purity of the ore, I would unhesitatingly pronounce it a valuable mine. The ore is of the granular variety.

BLACK OXIDE OF COPPER—POLK COUNTY, TENNESSEE.

Copper,	68
Oxygen,	32
	<hr/>
	100

Other varieties of copper ore are found in same locality, as red oxide, green carbonate, sulphuret, and native copper.

CARBONATE OF ZINC—CLAIBORNE COUNTY, TENNESSEE.

Oxide of Zinc,	63
Carbonic Acid,	37
	<hr/>
	100

The oxide of zinc, in this analysis, yielded nearly 50 per cent. of pure metal.

[ART. VIII MEDICAL TOPOGRAPHY OF NASHVILLE, TENNESSEE.

By RICHARD O. CURREY, M. D.

(Continued from page 417, November No., Vol. I)

TABLE 25.

1853.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
White Males, - - -	5	13	8	7	5	10	5	7	8	6	2	3	79
White Females, - - -	5	2	4	4	6	3	5	5	4	6	5	6	55
White Infants, - - -	14	11	8	9	8	21	22	13	16	9	11	9	151
Black Males, - - -	3	1	3	2	3	5	4		2	2	2	4	31
Black Females, - - -	1	4	4	3	4	7	4	4	1	2	4	3	41
Black Infants, - - -	7	9	8	6	10	9	7	3	3	2	5	6	75
Total, - - -	35	40	35	31	36	55	47	32	34	27	29	31	432
Diseases.													
Stillborn, - - -	7	4	1	3	6	6	2	3	4	4	2	3	51
Old Age, - - -	3	1			1		2		1		1		9
Whooping Cough, - - -	1						1					1	3
Consumption, - - -	1	2	4	4	4	6	4	4	3	4	8	3	47
Cold, - - -	6	3		3			1				1		14
Pneumonia, - - -	1			1	1				1		1	1	6
Croup, - - -	2	1	1		1					1			6
Convulsions, - - -	1	1		1				1					4
Diarrhæa, - - -	1	1	2	1	1	7	10	6	7	4	2	1	43
Teething, - - -	1	2	2	1			2	1	1			1	11
Intemperance, - - -	1					1		1	1				4
Inflammation Kidneys, - - -	1												1
Cramp Colic, - - -	1						1						2
Spinal Affection, - - -			1										1
Cancer, - - -		1		2	1					1			5
Dropsy, - - -		1	1			2	1		1	2	2		10
Pleurisy, - - -		1	1	1		1							4
Rheumatism, - - -			1										2
Inflammation Brain, - - -				1	3	4	6	4	3	5	1	1	23
Fever, - - -				1		1	1	3	3	1	2	1	14
Hemorrhage Lungs, - - -				1									1
Measles, - - -				4		2	3	1					10
Tetanus, - - -					1	2						3	6
Childbed, - - -						1	2	1			1	1	6
Yellow Fever, - - -									1				1
Scarlet Fever, - - -												1	1
Unknown, - - -													142

This completes our statistical tables upon which we design offering a few remarks :

THE MEDICAL TOPOGRAPHY OF THE CITY OF NASHVILLE AND ITS VICINITY.

Historical Sketch:—The city of Nashville is the county seat of Davidson, and the Capitol of the State of Tennessee. It is pleasantly situated on the Cumberland River, and is surrounded by a fertile region of country, in lat. 36 deg. 9 m. 43 s. N. and long. 9 deg. 47 m. 15 s. west from Washington. The eminences within and around the city limits, render the surface of the country undulating, affording also a variety of picturesque scenery, rarely equalled. The general surface of the country, thus broken, is covered here and there with groves of Cedar, which add from their perpetual greenness, to the landscape. The principal part of the city is constructed upon a ridge, the highest point of which is about 180 feet above low water mark. On either side there is a gradual inclination to ravines which empty the waters drained into them into the river.

The earliest historical record of this place is the account given of it by M. Charleville, who in 1714, opened a store in one of the Shawnee forts, near the Lick branch, for the purpose of trading with the Indians. The whole country was then in possession of the Shawnees, but so famous was this as a hunting ground, that marauding parties of other tribes so harrassed them that they were compelled to emigrate further to the north, (Ramsey.) The Chickasaws and Cherokees, by turn, became its occupants, but at the time when attention was being directed to it from the glowing accounts given of its extent and fertility by adventurous explorers, it was almost unclaimed territory. One of the first of these explorers was Captain Demumbrane, who remained in the country for a long time alone, and finally, when other emigrants came in, took up his abode here also. His is the only name of all the pioneers which has been given to any part of the city, being perpetuated in that of *Demumbrane Street*. In 1766 Col. Smith with a party, explored the waters of the Cumberland to its outlet into the Ohio, (Haywood.) A few years later a party of French from New Orleans ascended the Cumberland and erected a station at the Lick, and hence the name of French Lick, to the present Sulphur Spring. What caused them to abandon the country is not known. Four years later, in 1769, another company descended the Cumberland to the Lick, where they built a fort. The country was said to be covered with immense herds of Buffalo, and their bellowings which resounded from vale to hill, was truly terrific. In 1795, Col. Henderson and associates effected a treaty with the

Cherokees, by which all the country between the Kentucky and Cumberland Rivers was ceded to the company in consideration of the payment of £10,000 sterling, (Monettee.) "In 1779," to use the language of Dr. Ramsey, the author of the *Annals of Tennessee*, "a little colony of gallant adventurers from the parent hive at Watauga, crossed the Cumberland mountain, penetrated the intervening wilds, and pitched their tents near the French Lick, and planted a field of corn near where Nashville now stands."

Having succeeded in raising an abundant crop, Captain James Robertson, the leader of the colony, visited the settlements and induced additional emigrants to join the colony. Two parties were formed, the one to be conducted by Robertson, by the circuitous route of the Cumberland gap, and through Kentucky to the Lick; while the other under the charge of Col. John Donelson, was to proceed on the still more hazardous route of the Holston and Tennessee Rivers to the Ohio, and up the Cumberland to the French Lick. The first party consisting of men driving the stock, reached the Lick in the early part of 1780, during one of the most inclement seasons and coldest winters on record. On arriving at the Cumberland at this point, it was so firmly covered with ice as to allow them to pass over safely with their wagons and cattle. There has been but one other winter since then that it has frozen over, in 1832. The other party, consisting of emigrants with their families, after a most perilous voyage, especially in the passage of the Muscle Shoals of the Tennessee River, arrived at their future home somewhat later in the spring of 1780. From a journal kept by Col. John Donelson, the original Ms. of which is in my possession, and which is replete with incidents, I extract the following memorandum:

"Monday, April 24, 1780. This day we arrived at our journey's end at the Big Salt Lick, where we have the pleasure of finding Captain Robertson and his company. It is a source of satisfaction to us, to be enabled to restore to him and others, their families and friends, who were entrusted to our care, and who sometime since despaired of ever meeting again. Though our prospects at present are dreary, we have found a few log cabins on a cedar bluff above the Lick, which have been built by Captain Robertson's company."

From this we may date the permanent settlement of Nashville. In 1783, the county of Davidson was established by the Legislature of North Carolina, and in 1784 the town of Nashville was laid off. Commissioners appointed by the Legislature were authorized to lay off 200 acres upon and around the bluff in one acre lots, reserving four acres for public

buildings, being part of our present Public Square. To attempt a description of the progress of our city would require more space and time than we can at present yield. Its population however has steadily increased annually. We have collected the following items of its increase. In 1804, the population amounted to about 400—1810 to 1100—1815 to 1,600—1820 to 2,200—1823 to 3,463—1826 to 4,954—1832 to 5,838—1840 to 6,929—1845 to 12,394—1850 to 16,000—1853 about 20,000.

Physical Geography. From Capitol Hill, the highest point within the city limits, there is presented a fine view of the surrounding country, as of a vast amphitheatre, limited by a range of hills about 5 miles equidistant from this central eminence. Through this circular valley, the windings of the Cumberland may be observed for several miles, and as its channel here forms a large bend or curve, the smoke of steamers may be discovered moving along almost imperceptibly above the forest trees from a point far off in the east, till passing along by and around the city, it is gradually lost in the western hills. This Capitol Hill overlooks almost the entire city. It is interesting to note the difference in the inclination on its several slopes. To the North and West, the descent is rapid and steep to a ravine—while on the East and South, the inclination soon passes off into ridges—the one of which pursues a circuitous route to the bluff—and the other to the southern limit of the city. On these two ridges the main part of the city is constructed. Tracing the one out in its course, we find it from the base of Capitol Hill inclining to the south as far as the corner of Union and Vine streets, thence gradually curving to the east, passing along in the rear of the Episcopal Church, thence by the Sequoyah—thence inclining diagonally through the improved lots to the corner of Union and Cherry streets, and thence in a straight line to the new street leading to the Suspension Bridge. On either side of this axis there is a gradual inclination to the north and to the south to the two ravines, the waters finding their way originally in natural drains to these ravines, but now constrained by sewers to the streets and alleys. It may be observed that the point at the bluff where the ridge terminates, is evidently higher than any other point of the axis.

Descending again from Capitol Hill and passing out southwardly to the corner of Union and Vine streets, we find the ridge bifurcating—the one branch going the route just described—the other continuing still farther south through the grounds of the late President Polk, thence descending and passing along on a line with Spruce street—through the old

south field to the State Hospital, where it meets with the ridge that comes off from Meridian hill. The waters on either side of this ridge make their way to the river through the same ravines mentioned above.

Thus undulating within and around the city, nature has provided for the thorough drainage of the surface. Into these two large ravines, on each side of the city, all the waters are naturally drained and thence flow into the river. The southern ravine which passes through the sixth ward, begins near the Franklin turnpike road, and from thence gradually widening, passes through a flat bottom by a very gradual inclination to the river. This broad and flat bottom, is subject to inundation even with a slight rise of the river, and hence the several streets leading out to south Nashville are elevated with stone bridges—only one of which however is as yet above high water mark. The culverts through these bridges are narrow, yet sufficient to allow of the easy passage of the average amount of water flowing through them. This ravine is rapidly being filled up, not only by the owners of the property, but by the deposits left after the annual overflows. During the summer months also a rank and abundant vegetation springs up—composed mainly of weeds of several kinds, and as vegetable and animal matter of all kinds here commingle, when the parching suns of summer exhausts the moisture, a rapid and offensive decomposition takes place, the deleterious effects of which, any one may readily understand. The width of this valley along College street bridge is about 300 yards, and as it becomes narrower as it approaches the river, there is here formed a large basin—which may be regarded as a fruitful source of disease.

On the north of the city we have another ravine, which beginning near the Charlotte pike, reaches to the river, being larger and wider than the one on the south of the city. The level lands through which this ravine passes, were it not for the overflows of the river, would afford sites for private residences, and for displays of gardening, surpassing any other section around the city. The free gushing of McNairy's spring is in this ravine, affording a source from whence thousands in the city obtain their water—while a few hundred yards nearer to the river, in a deep basin, the Nashville Sulphur Spring—formerly the French Lick, gushes forth. This is a romantic spot, and full of pioneer incident. It is resorted to now by as many thousands of the human race, as it was in early time by the Buffalo. An abrupt bluff, skirted with huge overhanging forest trees, almost surrounds it, the circle only being broken where the branch enters and passes out

from it. And there too on that highest point was the burying place of the pioneer dead. Though within my recollection, numerous stones marked the spots sacred to the repose of those lying there, yet now scarcely a stone is left to tell that it is hallowed ground. Will not the citizens of Nashville, erect here, a monument surrounded with an iron railing, with the inscription, *Sacred to the memory of the Pioneer dead, whose bones here moulder into dust. Their bravery and their enterprise laid the foundations of a city, and the citizens of Nashville thus perpetuate their patriotic deeds.*

The Cumberland River, during the summer season, appears as a modest stream quietly pursuing the even tenor of its way at its lowest water mark, scarcely admitting of navigation;—but when the rains and the snows of winter fall, it swells and rolls majestically, scarcely ever failing twice or thrice each year to overleap its banks and spread itself through the surrounding country. At this point such outlets are afforded for its swelling floods in the two ravines described, and also over the entire length of the low lands between the little village of Edgefield, just opposite this city, and the channel of the river. Just above the city, near the water works, there is also another extensive bottom known as Lewis's Bottom, over which the high waters flow. At such times, and just such an occurrence presents itself while I am writing this description, the high waters reach even into Broad Street—and along the southern ravine, back up as far as Wilson's spring—while along the northern ravine they head at the turnpike leading to the Penitentiary. These annual swellings of the river give to the business of the city a kind of exaltation—subject to a depression to some degree during its low stages during the summer. And as there is a large extent of country dependent upon Nashville for its supplies—as well of groceries as of dry goods, drugs, &c., and which has rapidly increased since the completion of the railroad which connects us with Chattanooga, and consequently with North Alabama, North Georgia, and East Tennessee, steamers of the largest size are constantly plying between our city and the South, during the boating season, taking out our cotton and corn, and live stock, and lumber, and bringing in return large supplies of groceries of all kinds, with fresh cargoes of the delicious fruits of the southern clime. And so short is the time required to make the trip, that no steamer ever arrives or departs, that has not its full quota of passengers. Thus there is constantly an influx of strangers poured into our midst. Some come for purposes of trade, and consequently remain here for some days, according to the nature of their

transactions. These are, moreover, generally from the interior—where they have been accustomed all their life time to pure air, fresh water, homely and wholesome food, and regular habits. Their sojourn in our midst breaks up all their accustomed associations, and the seductive influences of a city, with its luxuries, tend in many instances to engender the seeds of disease, the fruit of which is oftentimes the grave. Others there are again who are only transient, whose home is the wide world, and who during their visit, pamper without restraint to their appetites, and serve to keep up the ills that flesh is heir to.

There seems to be some regularity in the times for the rising of the river. Most generally the first high rise in the river takes place from the rains and snows that usually fall during the last week of December, or in the first week of January. The second high rise most frequently occurs towards the last of January, and another about the first of March,—and April also, with its constant showers, most usually keeps up the swelling flood. In June there occurs a succession of rains about the time of harvest—and always—we have never known it to fail, an abundance of rain falls in the first and second week of October. A wet season conduces to the health of those living on the low lands, while those on the uplands suffer—and the reverse in a dry season. The reason of this is obvious.

We know not how far we may be correct in our conclusions, but there seems to be a series of years for extremely high floods. The first of which we have any record, occurred in 1780. We have heard our father, who came to this place in 1796, speak of the flood in 1808. The floods of 1826 and of 1847 are familiar to our citizens. Now compare these dates, and there is an average interval of 22 years between each successive high flood, and if other freshets are considered, it will be seen that generally our high tides occur every 7 years, and the highest every 21 years. Are these data correct? And if so cannot some benefit be derived from the facts which they seem to elucidate? Have not the citizens of Nashville lost by these annual floods more than would have been sufficient to have projected and put into operation some plan that would have prevented the inundation of such an extent of territory within the corporate limits. This is true not in a pecuniary point of view alone, but are not such overflowed districts the most unhealthy portion of the city? Is it not there that fevers and epidemics, especially cholera, most generally find their victims? We think that our mortuary records bear us out in these interrogations? But to this point

presently—we merely state in conclusion on this subject, that the difference between high and low water mark is ascertained to be 58 feet.

The commissioners appointed by the General Assembly of the State of North Carolina, originally laid off the streets and alleys at right angles to each other, and as successive portions have been added to the original corporation, this arrangement has been preserved. The streets are generally 52 feet in width—some of them are narrower, while only one is broader. It is to be regretted that they were not made wider, and also that squares had not been reserved for public parks. It is also a matter of regret that such general destruction was made of the native growth which once covered these hills, for it is now an admitted fact, that shade trees along the side walks and in parks, are as essential to the vitality of a city, as lungs are to an animal. They are emphatically the city's lungs, and if wanting, the body politic would suffer as much from impure air as the animal with the bronchial tubes tied would from imperfect respiration. An animal enclosed in a jar, suffers not so much for want of air, as for being required to breathe the same atmosphere repeatedly, and so it is in a crowded city where no arrangement is made by green trees and flower gardens for the purification of the air exhaled by its citizens. A city thus constituted becomes truly a *grotto del cano*, where the deleterious atmosphere, heavier than pure air, not allowed circulation by reason of narrow streets and filthy alleys, settles down and poisons the life blood of its inhabitants. Such a variety of forest trees of native growth originally grew upon this soil, as would have contributed materially to the health and beauty of this thronged city. Like the red man, who reclined beneath their shade after bathing in the gentle Cumberland, they are all gone, except that here and there a solitary one is still permitted to stand erect, and in the sighing of its leaves mourning the loss of its fellows.

ART. IX.—VISION.—INQUIRY CONCERNING THE APPRECIATION OF
THE DIRECTION OF VISIBLE OBJECTS.*

By B. WOOD, M. D., OF NASHVILLE.

It would seem to be a law of mind, that all impressions on the senses are referred to objects in the outer world; and further, that all objects are looked for in the situation corresponding to that from which the sensible part is impressed.

It is assumed to be from the *impression* produced upon the expansion of the optic nerve, by the agency of light proceeding from external objects, and not from their images pictured upon it, that the sense of vision is enabled to take cognizance of them.

Without entering into the domain of optics, let it suffice to state the general law that *Objects are seen in the direction in which the rays of light proceeding from them, strike the eye, however modified the course of the rays in their transit through interposing media.* Or, since the impression of light is only felt by an expansion of the optic nerve, the retina, it should, perhaps, be more correct to express this law by saying that, *Objects are seen in the direction in which the light, by the means of which they are represented, reaches the retina.*

FIG. 1.

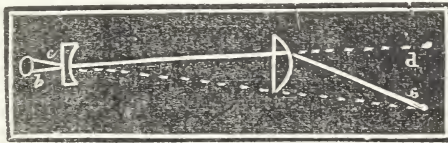


Fig. 1.—a, b, ray of light proceeding from an object at a, through a convex lens to the eye at O, and seen in the direction b, d. By now interposing a concave lens, the ray is refracted in the opposite way towards c, and refers, as indicated by the dotted line c, a, to the true direction of the object at a.

The rays of light are, however, bent out of their course in

* The speculations upon this subject are taken from a Thesis on the "Physiology of Vision," published in the "*Nashville Journal of Medicine and Surgery*," May and June, 1852. With little prospect of the desired opportunity for further investigation in regard to them for the present, and their republication having been requested, they are here submitted as they are, without revision or addition. Several collateral subjects discussed in the original paper being omitted to reduce this article within due limits, it may appear in some parts, to want that close connection which might otherwise be expected.

passing through the different media of the eye, so as to reach the retina, as it would appear, in a direction quite different from the radiant point. Indeed, it were easy to demonstrate that the combined refrangibility of the *humours* of the eye is such that the rays would be so drawn out of their course as to render the law of optics just mentioned wholly inapplicable if extended to the retina; it would not only be no guide to the direction of objects, but utterly incompatible with vision.

Let us, then, examine a little more minutely the refracting media of the eye with reference to their influence upon the course of light in its passage through them to the retina. Besides the humours of the eye, which have so much claimed the attention of philosophers, we find several membranes or capsules intervening between them, and affording an investment for each. Thus we have the cornea, the membrane of the aqueous humour, the capsule of the lens, and the hyaloid or vitreous membrane. Now it will occur that these membranes, apart from the humours they invest, must act an important part in the refraction of light. Being more dense in structure than the latter, their refrangibility should be greater, though it would seem that their tenuity (or comparative insignificance in *bulk*;) has caused them, if we except the cornea, to be disregarded, as unimportant, in estimates of the refractive power of the eye. While the humours are treated of as the lens of the eye, the membranes are viewed as mere appendages, deserving consideration more from their use in sustaining the former in their places, and perhaps modifying the relative position of them, than for their intrinsic importance as optical instruments. I look upon this as a great oversight on the part of physiologists. Indeed, I should be disposed to regard these capsules, together with the crystalline, as the true lens of the eye, and the humours proper, as rather affording the necessary support and uniformity of surface to enable the former to fulfil their office as lens. At any rate, none will question that these membranes act a *part* in the refraction of light. That the density of their *structure* is such as to act more powerfully in refraction than the humours, will not, I think, be disputed, for if this structure were collected in equal bulk with that of the humours, in the same form, its superior refrangibility would strike any one as self-evident. Now when we reflect that it is at the *surfaces* of bodies that refraction takes place, and that the parts beneath act only as a medium for *preserving the amount* of refraction occurring at the surface, we shall have a correct idea of the importance of the membranes of the eye as refracting agents, and of the relations which they and the hu-

mours invested by them, sustain to each other.—Regarding the humours of the eye, together with their membranes, as the refracting media, we find them arranged in the following order :

1st. The cornea, with the anterior portion of the aqueous membrane, (which may be considered, for the sake of brevity, as constituting a single medium.) This is thick and dense, and presents an anterior convex, and a posterior concave surface; next, the aqueous humour; next, the posterior portion of the aqueous membrane and anterior portion of the crystalline, which we will also consider as a single medium, calling it the *middle membrane*; these have similar surfaces to the cornea; then comes the crystalline humour, a double convex lens; then the posterior part of its capsule in conjunction with the hyaloid membrane—(call these the *posterior membrane*)—presenting an anterior concave, and a posterior convex surface; and lastly, the vitreous humour.

Assuming the structure of which the several membranes are composed, to be the same in each, and of somewhat greater refrangibility than the humours, let us trace the course of a ray of light through these different media, as arranged in their order as above. If, in place of the proper fluid of the eye, its different membranes were filled with air, then a ray of light (falling obliquely to the perpendiculars at the points of contact, of each,) would be equally refracted at both surfaces of each of the membranes, but in contrary ways—the convex surfaces producing convergence, and the concave, divergence of the ray, which would finally leave the last surface in a line parallel to that in which it entered the first. It would, however, be thrown out of its path by each membrane in proportion to the thickness of each, and its total deviation towards the common axis of the several media would be proportioned to the excess in thickness of the two first over that of the last.—Let A. B., Fig. 2, represent a ray and its course—then, (according to the law, that objects are seen in the direction in which they reach the, eye) to an eye at B., the object A. would be seen at a.

FIG. 2.

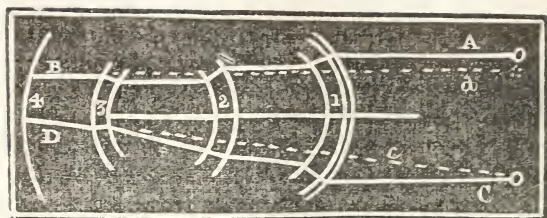


Fig. 2.—Refraction at the several surfaces. 1. Cornea, 2. Middle Membrane, 3. Posterior do. 4. Retina. A. B. Course of a ray of light through the membranes, the interspaces supposed to be occupied by air :—a, apparent position of the object to the sentient point at B.—C D Course of ray through the membranes filled with the humours of the eye :—c. direction in which the object appears.

Now what would happen with a corresponding ray having to traverse the same media filled with the proper fluids of the eye? Upon entering the first surface of the *cornea* it would undergo the same refraction as in the other case; at the 2d or concave surface, meeting with a rarer medium, it would incline to its original course, but finding in the aqueous humour a medium more dense than air, it would be unable to recover its direction entirely, but would pass on between the two to the next convex surface, that of the *middle membrane*; this would again cause a convergence, though less than would occur upon entering it from the air. Emerging from the posterior surface of the *middle membrane*, it would again tend to assume the course it pursued in the aqueous humour, but since the crystalline humour, though rarer than the membrane, is still denser than the aqueous, it would again have to take a midway course, which would be preserved to the anterior surface of the *posterior membrane*. Here finding a denser, (*concave*) medium it would be refracted outwards or made to *diverge* from the central axis, but on reaching the next, (*convex*) surface, and there meeting in the vitreous, a rarer medium, be again converged, and from this refracting point proceed in a direct line to its termination upon the retina.*

The general effect of this series of refractions is not indeed to increase the total amount of refraction, but to *approximate* the beam of light sidewise, as it were, so that the path of the ray would be preserved more in a strait line with

*This of course would not be uniformly the case, for whenever the ray, on account of previous refractions, were brought to meet any of the surfaces at a line perpendicular to the point of contact, it would suffer no refraction. Besides, its refraction would be modified at each of the succeeding surfaces according to the obliquity in which (on account of preceding refractions) it might meet them.

the radiant point. Thus an eye at its termination might see the object in the true direction, or regarding the termination as a point of the retina, the latter would refer the cause of the impression back in a direct line to the object from which the ray emanated. It would literally be guided by the light to its source—or more scientifically speaking, it would be the mind tracing back an *effect* produced upon the visual sense, to its *cause* in the external world.

FIG. 3.

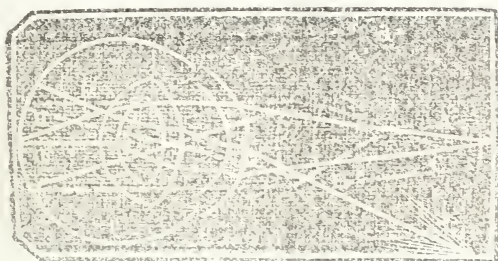


Fig. 3.—Exhibits the mode of refraction of light in its passage through the eye; the thickness of the membranes magnified as in Fig. 2. A. B, ray brought to a focus by convergence as usually represented, causing the object to appear at a. C. D, the corresponding ray brought to the same point according to the mode above described. E. F, central ray of the cone of rays H, refracted in the same manner. d, e, indicate the paths in which the two last rays meet the retina and the direction in which the objects are seen.

This mode of refraction by approximation, if sufficient to bring a single ray upon a line with the radiant point, should suffice to bring all the rays of a cone proceeding from that point in the same line. So also should the cones from different points be refracted so as to preserve the due relation to each other. It is known that the eye does refract all the rays constituting a visual cone so as to meet the retina at a single point, although it is supposed at different angles with the central ray. Now it is easy to see that a concave lens of the proper divergent power would carry these forward in the same line. If then the rays met at the anterior or concave surface of the posterior membrane, (or posterior part of the capsule of the crystalline) and this were a lens of the proper divergent power, the rays would be carried in a line to the retina. As then all the rays composing a cone are brought to a line, we may, for any further illustration, take the middle ray as the representative of each cone; as E, Fig. 3, for the cone of rays

II; and for more ready explanation suppose the total amount of refraction in one direction, to take place at a single surface; and then we might regard the cornea as a convex lens, equal in refractive power to that of all the other convex surfaces; and the anterior surface of the posterior membrane, as the corresponding concave lens of the requisite power to correct the aberration in the direction of the rays of light before reaching the retina. It will be seen that the joint effect would be the same as though all the rays from any given point proceeded in a direct line to a corresponding point on the retina

FIG. 4.

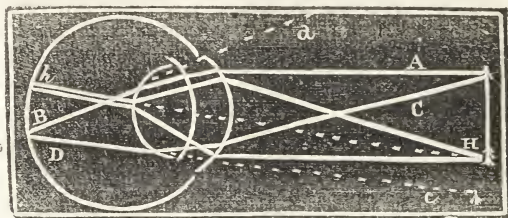


Fig. 4.--Comparative view of this mode of refraction. Rays from H, are brought to the retina after correction of the *aberration of direction*, and of consequence refer the impression back to its source, to one and the same object, at H. The rays A C, are brought to a focus according to the generally received opinion; the ray A B, meeting the retina in the direction B, a, and C D, in that of D, c, by which two objects are indicated, one at c, and the other in the direction of a.

The correctness of the views here advanced is not in the present state of our knowledge of course capable of demonstration; for this would require an accurate knowledge in regard to *all* the refracting media of the eye, of the thickness of the several membranes, of their curvatures at their refracting surfaces, of their true position in the eye, and their proximity to each other, &c. But that this is the *tendency* I believe capable of demonstration from what is already known.

That the crystalline lens is composed of a series of concentric lamina arranged after the manner of the capsules of the humours as heretofore spoken of, and no doubt contributing to the same result, I regard as a strong presumptive evidence of the correctness of the principle involved in these speculations.

The following diagram is designed to exhibit the concentric lamina of the crystalline lens, as displayed especially in the more central portion of this refracting medium; from which it will be clear that the posterior segments of the several layers must act the part of a concave lens in regard to rays passing through them to the retina. The figure represents the thick-

ness of the lamina as very nearly equal to that of the interspaces.

FIG. 5.

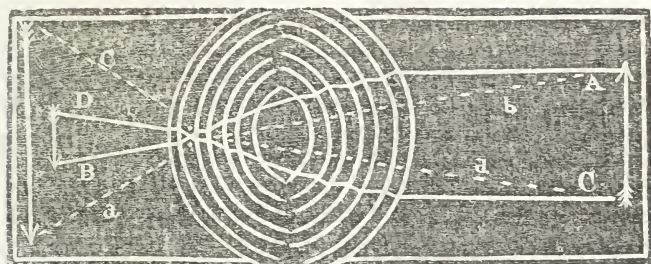


Fig. 5.—Section of crystalline with parallel rays, A B, and C D, passing through it, exhibiting their convergence by a series of approximations. Their course is alternately centripetal and parallel. At both surfaces of the nucleus (in the centre of the rings) they are converged. Thence they are refracted in the opposite direction; by which means the image at B D, is made to occupy a much smaller space than it otherwise would. But for this, the rays would proceed in the direction a, and c, the impression upon the retina being received as from objects far upon either side of those at the extremities of the arrows at A and C. As it is, the impressions are referred directly back along the dotted lines D, d, C and B, b, A, to the true sources.

The diagrams are not of course designed for mathematical accuracy, but only to illustrate the general principle herein presented.

The following position may then be assumed.

1. That the retina, or expansion of the optic nerve is the true sense of vision.
2. That it is made sensible of surrounding objects by the agency of light.
3. That it perceives visible objects in the direction in which it receives impressions from them.
4. That the eye is the organ or instrument by means of which this sense receives its appropriate stimulus, light.
5. That the eye is adapted for the correction of all aberrations in the refraction of light passing through it, calculated to interfere with the perfection of vision: and that this is effected by a system of refraction peculiar to itself,—as by a *series of approximations* as just described.

But although the direction of visual impressions be a means of indicating the direction of visible objects, this of itself, would be far from a sufficient guide to their location, to say nothing of the other essentials of vision;—for an object might be within the smallest limit of vision or infinitely remote and yet its direction the same. Nor does it suffice as an accurate

guide to the *mind* even in regard to direction. It only indicates the direction of objects from the *sentient point*. Their actual direction from the perceptive agent might still be wide of the mark, and this would be so if the centre of perception were unfavorably situated in regard to its sentient organ. Thus if the retina referred objects in the course of the rays impinging upon it, or rather if the mind perceived the objects to be in the direction in which the rays strike the retina, and the retina were removed to either side of the seat of mind, it is clear that the mind would not perceive the true direction of such objects in regard to itself. This could only be done when both the object and the impressed part of the retina were in the same direction from the mind. Such is actually the case as relates to vision. If we look with one eye and then with the other at an object, we shall see it removed alternately to either side of any fixed intervening point. This will be better proved if the object be far off and the fixed point of comparison very near. If the finger be pointed towards a star viewed with one eye, upon viewing it with the other it is seen far to the opposite side. Both eyes direct amiss—the true direction is between the two. Now how is this error obviated when using but a single eye? Simply by bringing both the eye and the object *on a line with the centre of perception*. Hence a line drawn from the pupil through the centre of the retina and terminating at the sensorium, might be regarded as the true visual axis for a single eye. Such an axis then would afford a correct guide to the actual direction of objects in relation to the seat of visual perception.

Of the changes in the position of the eye, the mind becomes acquainted through the nerves of general sensation. The Rectus Superior, Rectus Externus and Obliquus Superior, the most important muscles of the eye, are supplied by the Third, Fourth and Sixth pairs of nerves, which are voluntary motor nerves: so that the mind is not only made acquainted with the movements of the eye through the sentient nerves distributed to the orbit, but foresees and directs them.

The *direction* and *distance* being obtained, will afford good data as to all the essential points relating to visual objects.*

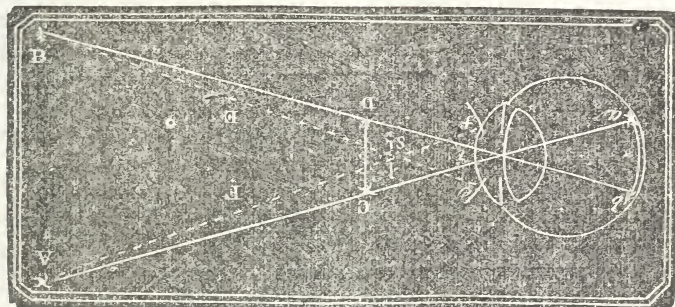
OF CORRECT PERCEPTIONS FROM INVERTED IMAGES.

The impression upon the retina is inverted with respect to the object; that is, the upper part of the object is impressed upon the lower part of the retina, and *vice versa*. This is necessarily so, since rays from the extremities of an object on

* The remarks on the Appreciation of Distance, are here omitted.

crossing in the eye must go to the opposite parts on the retina. It is also proved by experiments upon the eyes of animals, the images of objects being found inverted, precisely after the manner of an image in the camera-obscura. Now, although it is not the *image* of an object that causes the perception of it, yet it points out the situation of the *impression* produced by the rays coming from the corresponding parts of an object, so that in this respect the two terms may be regarded as synonymous. Why then should we perceive objects in their erect position?

FIG. 6.

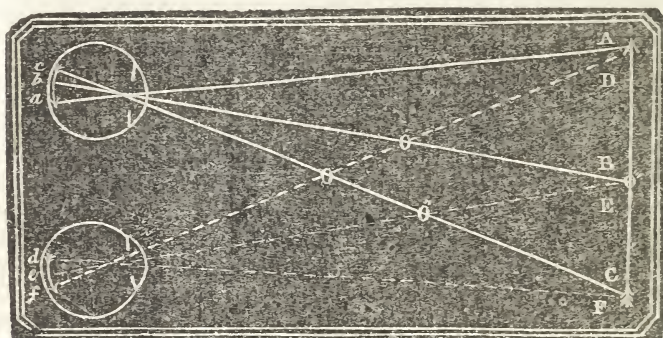


Let the eye be on a level with the horizon, so as to include a considerable field of vision, and then let a beam of light from an object in the air, as A. Fig. 6, enter the eye, while another enters at the same time from an object below, as at B. We know that the image (b) from the *lower* object (B) will be situated *above* that of the other on the retina. No confusion, however, results; we instantly refer the objects to their respective localities. Nor is there anything inexplicable in that we should do so; we simply look above for the source of the impression coming *from above*, and below for the source of that received *from below*. If the objects were connected together, so as to constitute the extremities of a single body, as C. D., the case would be precisely the same, and as easy of comprehension. All that is to be observed in regard to the phenomenon is, that the eye, like the other senses, is guided to the situation of objects by their impressions upon its nerves of sensation.—Such being the case, and the eye, as has already been shown, having within itself a corrective for errors of refraction which would otherwise lead it astray—all the rays of light being brought by its several media upon a line with the objects from which they emanate—the explanation is at once satisfactory.

If the *cornea* were the true seat of vision, this phenomenon would certainly be easy of comprehension. Suppose the sen-

sations communicated by contact of the rays A and B, were experienced at the point *i*, they would necessarily be referred back to the true sources. In this case it is true the impressions would hold the same relation to each other, so far as *up* and *down* are concerned, as the objects. But suppose the rays were made to cross, as in passing through an orifice at *s*, so that A produced its impression at *f*, and B at *e*, would it alter the perception in this particular? Certainly not; each impression would as truly indicate the object as before. And this would be precisely as though the rays had passed to the retina, that is, supposing there were no interposing media in the way. But it is clear that the presence of the media should not alter the case, since as has been heretofore shown, they restore the direction of the rays suffering refraction in passing through them, so that these reach the retina as if coming directly from the objects.

FIG. 7.



Upon the same principle we might account for a *single perception* from a *double impression*—that is, one upon each retina—a circumstance which has also given rise to much speculation. For if both eyes were in the *same condition*, in regard to their visual capabilities and in their relation to any given object, then it is evident that the two impressions would be referred by each eye, directly back to one and the same object. Thus the impressions at *a* and *f* (fig. 7) would be referred to A, *b* and *e* to B, and *c* and *d* to C. The same would hold good whether there were one, or two, or an hundred eyes; whether there were one or more optic nerves, whether these crossed in their course from the sensorium to the sense of vision or not, or whether the latter were the expansion of but a single nerve, or made up of innumerable nerve filaments interwoven in every direction. If, however, from any cause, the two eyes were not in such similarity of condition, we should

not expect the usual unity of perception, for each eye would then convey a different impression to the mind ; two perceptions would be the result, and instead of a single object, there would be two apparent objects. Of course each eye would then see the one corresponding to its own impression. If, for instance, the eyes were adjusted to o'' , at the centre of the arrow, (fig. 7) another object at o , would be referred to o' by f , and to o'' by c ; or, being adjusted to o , then o'' would appear at o' to b and at o'' to c ; two objects being represented. It would be interesting to trace the different causes productive of double vision : but it would lead too far from the tenor of the present inquiry, which has to do simply with the physiology of vision, without regard to its modifications as connected with two separate organs.

ART. X.—ON THE RISE OF MEDICINE IN ARABIA, &c.

An Examination of a "Notice of a Review" of Dr. Watson's Address.

In the November No. of the Memphis Medical Recorder, we published a brief and hastily written review of the Annual Address delivered before the Tennessee State Medical Society, by its President, Dr. JOHN M. WATSON. In the December No. of the Nashville Journal of Medicine and Surgery, appeared a "notice" of our review, which it is now our purpose to examine. The writer of the "notice" has, fairly enough, given us the advantage of a reprint into a Nashville Journal. For this we are especially thankful. And in this examination we may say some pointed things, but pledge our professional honor, that not one word shall be put down in malice.

It did strike us as rather singular, on reading the "notice" (which occupies eleven and a half pages) that the writer should style our review of two pages and a half, elaborate. Immediately after penning the review, "we found ourself," says the noticer, "not a little perplexed in assigning a motive to the author for its undertaking. The author of the address, and the author of the review, are both Tennessee physicians. Here we could perceive grounds for a motive for sustaining and upholding, but then the tendency of the review was in an opposite direction." This we have quoted, simply to dissent from the position. Were Dr. Watson and the Reviewer mem-

bers of the same society, it would be no reason for complete and entire unanimity of sentiment, and we think the Noticer might have extended his limits, and that "seeing we are both American physicians, etc." But continues the Noticer, "Upon inquiry we ascertained that the Reviewer, like the author, had studied theology, with a view to the ministry, and while, perhaps, he had not yet put on canonicals, yet it was reasonable he should entertain a filial sentiment for those who had." The writer of the Review *has never* studied theology with a view to the ministry.

We are told that the reviewer "thinks it a marvellous novelty in Dr. Watson to believe that the *primitive physiology* of man, which would have enabled him to live forever, was converted by the curse into a mortal pathology." Dr. Watson did not say anything about "*primitive physiology*," but did say "the outer man, though once endowed with the *physiology of life* (!) and possessing capabilities of living forever, through Eden's therapeutic guaranty, has, under heaven's curse, been changed into a mortal pathology, one that will end in death." Now, do not Dr. WATSON and the NOTICER both know that it is about as sensible to use such a term as the "*physiology of life*," as it is to speak of a "*post mortem after death*," and who ever heard of a "mortal pathology" ending any other way than in death? Why did not the Noticer face the music, and instead of bringing John Simon, F. R. S., to the support of Dr. W's. rickety idea, tell us at once, how the "*physiology of life*" *vitalized all living organizations*—or some such twaddle. We take off our hat to the gentleman, and bow our profound acknowledgments to the NOTICER for the following: "He shows us at once that with the career, habits, mode of thought, writings and politics, and everything else pertaining to certain wise old Arabs, *except the authography of their names*, he is perfectly *au fait*." In the course of this examination we shall endeavor to show the gentleman that we are tolerably familiar with the "authography of their names;" it will follow, therefore, that we are quite *au fait* in the whole matter.

Dr. Watson stated in his address that the star of medicine arose in Arabia, in the person of Avicenna; this we denied, and urged that Haly, Abbas and Rhazis, who had preceded him, were greater stars, more learned men, abler physicians—and now to the proof: When the Arabian Caliphs began to encourage learning, they founded a number of colleges at Bagdad, Hamadan, Bassora, Bochara, Cufa, and other cities, and invited learned men, of all nations, whether Jews, Christians, Mahomedans or Greeks, to fill the various departments of philosophy and science. A number of learned men accep-

ted the invitation, and carried with them the works of Hippocrates, Galen, Oribasius, Ætius, Paulus, Aristotle, Plato, Ptolemy and others. The Caliphs also procured all the astronomical and mathematical instruments that they could, as well as artificers to make them; and history informs us that these colleges were supplied with the most learned men of the times, and also with all the appliances for instruction.

From these colleges came most of the Arabian Physicians: Yahya Eben Serapion, Mohamed Ebn Zachariaa Abubeter al Rhazis, Haly Abbas, Abu Ali al Hosain Abdalla Ebn Sina—commonly called Avicenna—Messue, of Damascus, Alkindus, Ebenguefet, and many others of distinction. Haly Abbas has given us the fullest account of the works of his predecessors. The first author he mentions after the Greeks—for he refers to the works of Hippocrates, Galen, Oribasius and Paulus—is Aaron, of Alexandria; who lived about 350 years before him. He was the first among the Arabians who wrote in medicine. In his “Pandects of Physic,” he described the small pox and measles, and is the first author who mentions these diseases. The “Pandects” of Aaron are lost, except so much as has been preserved in the “Continens” of Mohamed Rhazis. The next physician that Haly Abbas mentions, is Messue—not Messue, of Damascus—(who lived long after his time,) but Messue, of Nisabur, in Chorasana. The next is John, the son of Serapion. The next is Rhazis, born at Rhei, a city in Chorasana, in the year 852, and who died A. D., 932.*

He was a very learned man—well versed in all the sciences. He is said to have written 226 treatises, besides two large volumes, which he called his “Continens,” designed apparently, for a common-place book, as the work does not bear evidence of that order which his other works have, such as the ten books he addressed to Caliph Almansur, designed by him as a complete body of physic. We shall endeavor to show that Rhazis, in these ten books, *systematized* Arabian medicine—that this system is as complete as any that has come down to us from the Arabians—that it was not only the best, but the first, published by the Arabians, and therefore, that Rhazis, and not Avicenna, was the star of Arabian medicine.

The first of the ten books to which we refer, is upon the Anatomy, Structure and Function of all parts of the body.

2d, On Temperaments and Humours of the body.

* Dr. Freind's Hist. of Phys.—vol. 2; p. 46.

3d, On the Nature of Aliments and on the Virtues of Simple Medicines.

4th, On the Method of Preserving Health.

5th, On Cutaneous Diseases, and their Cure.

6th, On Regimen, and Proper Kinds of Diet.

7th, On Surgery—in which he treats of Wounds, Ulcers, Dislocations, Fractures, and Surgical Operations.

8th, On the Different Kinds of Poisons—poisonous bites of animals, serpents and insects.

9th, On the Different Diseases to which the human body is subject.

10th, On Fevers—which he divides into sixteen different kinds, which he distinguishes by their different causes, symptoms, accessions, duration and effects.

He describes ten different sorts of pulse, and the consequences which they indicate; and he concludes his ten books with a description of the proper regimen for the sick, in the various forms of fever. In addition to all this, he gives us a treatise on the small pox and measles; and since the “*Noticer*” quotes Dr. Gregory in disparagement of his (Rhazis’) treatise on the small pox, we shall be a little particular to enquire whether “his theory is childish in the extreme, and his practice very bad,” as asserted by Dr. Gregory. It is useless for us to say a word in reference to the very full description of this disease, made by Rhazis, since Dr. Gregory says, “His description is clear and full.” In this treatise, which contains 15 chapters, he first describes the epidemical constitution of the seasons; * then the different symptoms; † then how to prevent being infected, or how to render them more moderate and mild, and less malignant; how to determine the morbid matter to the surface: how to assist their suppuration, and he is especially careful in his details concerning the preservation of the eyes. He then describes the proper diet, takes care to keep the body temperate or cool, advises bleeding or purging, or both, when the symptoms indicate them in the beginning of the disease, but forbids them during the periods of eruption and maturation. He describes the different kinds of small pox and measles, and calls them two diseases; he mentions the large, distinct kind, and the confluent, *alia in aliis*, and the parva alba, *velut verrucæ humore vacua, sunt improba*; and the viridia et violacea, et nigra, *cuncta pernicioosa*. He speaks of the second fever, and says, “*Quod si febris augeatur post excretionem pestilentia est atrox si vera purgatur, est clemens*

* Moham Rhazis, de Pestilent, cap. 1.

† Idem, cap. 4.

morbus;" and he gives his reasons for it. In both diseases he advises cooling acid drinks, and prescribes the vegetable acids copiously.* Rhazis also wrote pretty fully on diseases of the joints, and is the first that accurately describes a spina ventosa. He was the first author to write fully on the diseases of children. He describes all the different methods of bleeding, and all the different veins, and their situation, which were opened in the operation of bleeding at that time. He describes the method of cupping, and bleeding with leeches, and the mode of applying cauteries to any part of the body. But further: Rhazis wrote a work entitled *De Antidotis*—a sort of *Pharmacopœia*—in which were a number of medicines which were *new*, and *were not known to the Greeks*. It is admitted, on all hands, that the Arabians were the inventors of chemistry, and it is well known that they assiduously cultivated botany. Among the *new* remedies of which Rhazis treated, we may mention manna, cassia-fistula, tamarinds, senna, a number of aromatic spices, such as nutmegs, cloves, &c.; cubebs, ginger, camphor, liquorice. But it is not necessary that we should say more to prove our assertion that to Rhazis, and not Avicenna, belongs the credit of having systematized Arabian physic. We challenge Dr. W. or NOTICER, to refute anything that we have written. But "NOTICER" will, perhaps, assert that Avicenna did as much, if not more, than Rhazis. We deny that he did anything like the amount of labor, or exhibited anything like the learning of Rhazis; and we not only again *"deny that the star of Medicine arose in the person of Avi-*

*In the American Medical Recorder—vol. v, No. 1, April, 1822—may be found a long and extremely interesting article on the small pox, by Dr. Horatio G. Jameson, of Baltimore, Md. Under the head of "Medical History of Small Pox," Dr. J. says, Rhazis "describes the disease with tolerable accuracy, and says, that all persons are liable to have it once; but that persons have had the disease twice, and even thrice. He is the first writer who has recorded this fact. He advises bleeding, cold drink, with great freedom, ice water, bathing in cold water, cupping, where there may be objections to bleeding by the lancet, &c."

"The works of Rhazis were calculated to do mankind incalculable benefit through succeeding ages. But they were both preceded and followed by writings calculated to benight the profession in regard to small pox, &c."

And now for this writer's opinion of Dr. Watson's "Star," Avicenna. In the very next paragraph to the one quoted, he says: "Avicenna, soon after Rhazis, must have seriously injured the practice, for he advises sweating, warm covering, and the like, for expelling 'morbid humours.'" Will Dr. Watson or "Noticer" pretend that the practice adopted by Rhazis was not more correct than that of Gilbert de Gordonio, John, of Gadesdenesdue, and others who lived in and after the 13th century, which consisted in drawing the eruption to the skin "by warm air and red bed clothes," and by "looking upon red substances?"

cenna," but we "*directly deny that Avicenna is entitled to the identical distinction which Dr. W. assigns him in Arabian Medicine.*" Avicenna was born at Afhana, in Chorasana, A. D., 978; and studied at Bocara, a city famous for the cultivation of the sciences. Avicenna wrote a work entitled *Canones Medicinæ*, in which he copies Galen, Rhazis, and Haly Abbas, to a *very considerable extent*. He was a man of learning, but was principally distinguished for his philosophical writings. The Physical Sciences, including medicine, were not then separated from philosophy, and Avicenna displayed his learning more in the production of his works on logic, physics, and metaphysics, and his commentary on the works of Aristotle, than in medical literature.

Again, "NOTICER" makes us say that Avicenna was born A. D., 968—this we take as a typographical error, as by a reference to our review, he will see it is placed 978. We are a little particular as to *figures*, as we wish to see how Rhazis and Avicenna can be made to "flourish in the same century." Rhazis was born A. D., 852, died A. D., 932. Avicenna was born A. D., 978, died A. D., 1036. Comparing these figures—and they are accepted by the most learned and reliable commentators—we have a period of 126 years between the birth of Rhazis and that of Avicenna, and 104 years between their deaths. What then becomes of the assertion of NOTICER, that Rhazis and Avicenna "flourished in the same century?" Whether we have touched upon all the points sufficiently, for the enlightenment of "NOTICER," we know not; but as an offset to what Motherby and Hooper say, and as still further evidence that medicine, as a science and an art, was improved by the Arabians, we shall quote briefly from the *ENCYC. AM. ART. ARAB LIT.*—"At a time when learning found scarcely anywhere else a place of rest and encouragement, the Arabians employed themselves in collecting and diffusing it in the three great divisions of the world. In geography, history, philosophy, medicine, physics, mathematics, and especially in arithmetic, geometry, and astronomy, their efforts have been crowned with great success, as is proved from the various terms of Arabian origin still in use—for example, *almanac*, *algebra*, *alcohol*, *azimuth*, *zenith*, *nadir* and many others."

We refer NOTICER to Sprengel, especially for facts and data in reference to Arabian physic. But we quit Arabia. The "NOTICER" thinks that we may have lost our Greek in the labyrinths of our Arabic researches, because, our Review reads, "It is true the Arabians were somewhat indebted to the best Greek authors, as *these were* to Hippocrates." To say, "as these (the Greek authors) were to Hippocrates, &c., by no

means, to any sane mind, warrants the forced construction that Hippocrates was not a Greek:—if one were to say American authors are indebted to Rush, would it therefore imply that Rush was not an American! But the point around which NOTICER fulminates so vastly was in reality a typographical error, and should have been “*they*” referring to Arabians. The idea which we wrote was simply that the Arabians were especially and above all others indebted to Hippocrates. Nor will “NOTICER” object to our explanation since in his own explanation of the “few *ungrammatical* (!) words” detected in Dr. W.’s address by “the learned Boston Editor” he takes the same liberty.

We come now to a part of the “notice,” in which, what is termed the “theological feature” presents us some interesting points. We rather regret that the writer of the “notice” was misinformed on the subject of our theological studies. But, we would not call in question the profundity—the entity or quiddity—of Dr. W.’s theology. We presume he

“Knows what’s what, and that’s as high
As metaphysic wit can fly.”

As to the writer of the “notice,” he writes as if *his*

“Divinity had catch’d
The itch, on purpose to be scratch’d.”

Without throwing the glove theological, to one who “has added the responsibilities of the ministry, to those of the profession of medicine, for nearly a quarter of a century,” as we are informed, Dr. W. has, we shall briefly as may be, examine “the theological feature, both in the Address and the Review.”

“Scientific, moral and religious lights were all nearly extinguished by them (the Popes,) and but for Him, who in the conclusion of those dark ages, said, “let there be light, and there was light,” what would have become of the world! Except the Lord of Sabaoth, had left us a remnant, we would have been yet like unto anti-Christ. This elect remnant consisted of such as Arnold of Brescia, the Waldenses, Wickliff, Huss, Luther, Calvin, &c. Through these, as chosen instruments, did the world cast off its darkness, its thralldom and superstitions. Man’s way on earth had been strangely perverted. Gross darkness had settled over it; but the thirteenth century brought relief in degree at least, under its light, great was the reformation in all things!” (Dr. Watson’s Address.)

In our review, we made the following comment on the above. “As we read history, the reformation of the church

did not commence until the fifteenth century, and we are forced to the conclusion that the Pope of Rome, after all, was the great "light" under whom the reformation began in the thirteenth century, for, says a Protestant writer, "the authority of the Pope over the public mind, even in the fourteenth century, was such as scarcely to suffer the murmurings of discontent to be heard." In reply to this comment, NOTICER says:—"In the first place, Dr. W., did not say anything about reformation of the church, but speaks of an elect remnant consisting of Arnold of Brescia (written *Brescia* in the address,) the Waldenses, Wickliff, Huss, Luther and Calvin;—he adds "but the *thirteenth* century brought relief in degree at least." *What an artful dodger!* Now, let us ask any calm, dispassionate reader, whether or not, Dr. W., *could* mean any other than a REFORMATION OF THE CHURCH? The Pope was the head of the church—the Pope extinguished nearly all scientific, moral and religious lights—any reformation therefore must have been a reformation of the church. Again, man's way on earth had been strangely perverted—gross darkness had settled over it, and except the Lord of Sabaoth had left us a remnant, we would have been yet like unto anti-Christ; but an elect remnant was left, and this remnant consisting of Arnold of Brescia, the Waldenses, Wickliff, Huss, Luther and Calvin, produced in the *thirteenth century* a reformation, and not an ordinary reformation, for we are told "*great was the reformation in all things.*" If "*in all things*" then of course *in the church*. Indeed who ever heard of Luther, Wickliff, Huss, or Calvin, ever having any thing to do with reformations other than ecclesiastical ones? But why did not NOTICER notice the point? Simply we presume because he saw that Wickliff, Luther and Calvin, could have had very little to do with a reformation of any kind in the thirteenth century, seeing that neither of them lived until years and years thereafter. Since, as Dr. W. stated, and very correctly, there was a reformation in the thirteenth century, and Wickliff, Luther and Calvin, lived not in the thirteenth, but a subsequent century, then we are obliged, as we stated in our review, "to look upon Wickliff, Luther and Calvin, as the offspring of a reformation already begun and carried forward to a wonderful degree of maturity."

But, again, Dr. W., mentions an "elect remnant" who prevented our being "like unto anti-Christ" by bringing about a reformation in the thirteenth century, while it so happens that only *two*, out of his "elect remnant" of six, lived previous to the thirteenth. The four remaining ones not having flourished until some time subsequent to that century, and not one of all the six lived in said century.

And, finally, that Dr. W., did refer to the "reformation of the church" we prove beyond the possibility of cavil, by quoting from his address a sentence left out in the extract in our Review. The address reads "scientific, moral and religious lights, were all nearly extinguished by them, (the Popes) and but for Him who in the conclusion of those dark ages, said 'Let there be light,' and there was light, what would have become of the world! Moral, scientific, and religious lights arose in many parts of the world. *A reformation in religion* brought along with it a reformation of morals and pursuits; and *great indeed were the results*, except the Lord of Sabaoth had left us a remnant &c." We should be sorry to believe that Dr. W., had anything to do with the assertion, that "Dr. W. did not say anything about reformation of the church."

We are told that "this production of Dr. Watson, was not thrust upon the profession, but, upon the contrary was elicited by that profession. He was made President of the Tennessee State Medical Society, by those who had long and intimately known him, and who therefore entertained a profound respect for his splendid abilities, &c. His office forced upon him the preparation and delivery of an address, which he did in such manner as to satisfy every member of the wisdom of the appointment. The address was ordered to be published—is before the world &c., etc." All this is no doubt true. Dr. W.'s address was ordered to be published, and he gave it with all its imperfections to the world, and the very moment the sentiments of the address were enunciated by Dr. W., that moment they were thrown into the *ominum gatherum* of medical history, and became the legitimate subject of criticism; and the more "splendid" Dr. W.'s abilities, the greater the necessity of a just and dispassionate examination of the views he publishes, for it is from men of "splendid abilities" that we look for those pure and lofty sentiments, which, descending on the masses, diffuse themselves and give shape and tone to professional opinions. We contend for that sound and legitimate criticism which never allows the judgment to be warped by admiration of "splendid abilities," or by any sort of favor. We have passed over the personalities, indulged in by the writer of the "Notice," for in the first place they have no bearing on the points at issue; and secondly, the regard we have always entertained for the purity and character of our profession forbids our clothing its legitimate discussions with language, or introducing sentiments, suited only to the vulgarities of a Quack Festival—with them, therefore, we have nothing to do. Our "Review," and this "Examination," have but

one object, the elucidation of facts, and with best wishes for Dr. W.,

We have the honor to be, his very ob't. servant.

CHARLES T. QUINTARD, M. D.

Professor of Physiology and Path. Anal. in Memphis Medical College.

Memphis, Tenn., Dec. 1853.

RECORD OF THE MEDICAL SCIENCES.

PRACTICAL MEDICINE AND SURGERY.

1. *Chemico-physiological effects of Coffee.* By Julius Lehmann.

The great consumption of Coffee, as also its instinctive use by the poorer classes particularly, the most of whom are not in a condition to obtain, in proportion to their expenditure of strength, such an amount of plastic nourishment as is necessary for the preservation of health, led the author to the view, that coffee, apparently, by retarding the metamorphosis of tissue in the body, renders what is an otherwise insufficient nourishment, sufficient. His conclusions are based chiefly upon observations made upon the urine of two individuals, from whose diet coffee was excluded for a given period, compared with the urine of the same persons whilst using the coffee freely. He ascertained by careful measurement and analysis, that whilst the quantity of the secretion was augmented, by the use of coffee, there was a decided decrease in the amount of solid constituents, viz: Phosphoric Acid, Chloride of Sodium, and Urea. He concludes from these experiments that the habitual use of coffee retards the process of secondary assimilation, and in this way, compensates to a certain extent for a deficiency of more plastic nourishment.—(*Medical Examiner, from Annal des Chem. and Pharm., Aug., 1853.*)

2.—*A case of Hemorrhage from Inversion of the Uterus, in which the operation of transfusion was successfully performed, with remarks on the employment of transfusion generally. By John Soden, F. R. C. S., Surgeon to Bath Hospital.*

The author is impressed with a strong belief, that the extent of the evidence in favor of transfusion is very little known to the profession at large; that false notions prevail respecting its dangerous character, and the difficulties attending its execution. An opportunity having occurred to him three years before, of proving its efficacy in the case which forms the subject of this paper, he was induced to prepare a statistical table of puerperal cases, in which the operation of transfusion had been performed.—Case 36: The subject of the author's paper, was a lady in her second confinement; the labor was rapid, and the pains so severe, that the uterus was violently emptied of its contents, and *inverted*; followed by profuse flooding and extreme syncope. After the usual means of restoring warmth, &c., had failed, Dr. S. exposed the external cephalic vein, two inches in length. Mr. Ormond bled the husband, the blood being received into a small deep basin, standing in another containing hot water. As soon as sufficient blood had been drawn, a syringe previously well warmed, and invested with a hot cloth, was filled with blood, and the operation of transfusion at once proceeded with. At first the blood would not pass up, but the opposition from the close contact of the coats of the vein, seemed to give way, and the blood rushed up the vein with a rapidity which the eye could scarcely trace. The effect was electrical; instantaneously a convulsion seized the whole frame, and the muscles of the face were frightfully distorted. Not more than an ounce had been thrown into the vein, which happily proved sufficient; the convulsion was but momentary, and signs of returning animation immediately succeeded. A restless movement pervaded the whole body—the arms were tossed over the head, and though consciousness did not return, the patient faintly, but audibly spoke, muttering two or three times the expression, “so tired,” “so tired,” she seemed to pass from a state of coma into one of syncope. The heart's action was now distinctly perceptible, and the vital energy gradually but very slowly returned; it was full an hour before any pulse could be felt at the wrists, and though the recovery steadily progressed without relapse, the patient did not recover consciousness until the following morning. During the whole of this time, every means was used to promote warmth, and no difficulty was experienced in getting the stimulants swallowed, that were from time to time administered. Some

inflammation was set up in the forearm below the point of the incision, but was not of any moment, and yielded promptly to emollient fomentations in the course of two or three days. The patient remained for a long time in an exsanguined state, and complained of weakness and pain in the back. She did not nurse her child, and the catamenia returned in three months. Subsequently, she suffered from Leucorrhea, and was treated for ulceration of the womb. This lady is now in India; recent accounts have been received of the birth of another child, and the well doing of the mother.

An analysis of the "Table" shows, that out of thirty-six cases, including the one just described—twenty-nine were recovered from imminent death by the operation of transfusion, and in seven only its performance was unsuccessful in restoring animation. It does not appear that the fatal termination in any case was due to, or hastened by the operation, though in two instances, the latter effect was, on no warrantable grounds, attributed to its influence. Dr. S. believes, that transfusion is not to be regarded simply as the restoration of a certain deficiency of blood; for the benefit it affords bears but a trifling relation to any rule of loss and supply; nor is its agency to be attributed solely to its mechanical influence, as a warm fluid upon the heart; but as a direct, powerful—and he almost adds, when resorted to early—unfailing stimulus to exhausted energy, even at the lowest point of existence, and when past the restorative aid of any other known means, either extraneous or inherent. From the "Table," it appears that the total *quantity* transfused varied from one to twenty-four ounces and a half. It does not appear that too much blood was ever injected, or that any signs presented themselves indicating repletion. The blood to be transfused, may be drawn from different individuals with equally good effect, as from one alone, and no evil results from the combination. The blood of a healthy robust individual appears to be preferable to that from a weakly or delicate subject.

As to the *mode of performing* transfusion, the simplest means seem to be the best; a common syringe, accurately made, fitted with a stop cock, and capable of holding about three ounces, is the most convenient instrument for the purpose.

Dr. S. concludes with a few suggestions as to the general applicability of the operation of transfusion, in the exhaustion consequent upon a loss of blood from any circumstance in organic disease tending to anemia, and the diarrhea of children, where fatal exhaustion is threatened. (Med. Ex. from Medico-Chirurgical Transactions, vol. 35.)

3.—*Mechanism of the Process of Spontaneous Evolution.*

Dr. Boling, of Montgomery, Ala., (Charleston Medical Journal,) thus describes—in the article contrasting it with other descriptions—the mechanism of the process of spontaneous evolution. “First position of the right shoulder—the head of the fœtus rests in the left iliac fossa, the breech in the right, its abdomen towards the sacrum of the mother, and its back toward the pubes—the right side being downwards, or towards the pelvic cavity. On the rupture of the membranes, owing to the complete evacuation of the liquor amnii which takes place, the uterus itself rapidly diminishes in volume, and firmly embraces its contents, so that the two extremities of the fœtal ovoid are made to approximate, the head being pressed towards the right, and the breech towards the left, and the ovoid mass is curved, so that the left side, or that directed towards the fundus uteri, is rendered concave, while the right side which looks towards the pelvic cavity, forms a convexity. In proportion as the convexity increases, the shoulder or side, to a given extent, descends into the pelvic cavity; but, as the bi-parietal diameter of the head, and the transverse diameter of the breech conjoined—which now tend to engage in the superior strait—measure greatly more than the transverse diameter of the pelvis, however close the approximation, the part in advance must cease to descend till some other change is effected.

Though the hand itself may drop through the vulvar opening, so long as the child retains its transverse position, as regards the superior strait, its further descent is prevented by the breech and head still resting respectively on the right and left iliac fossa; and neither the shoulder—which is virtually the presentation, whether the arm be prolapsed or not—nor any other part can escape, for the reason that the neck of the child is not equal in length to the lateral depth of the pelvic wall. Things having continued in this state a period differing in duration in different cases till, in all probability, in all the convexity formed by the right side of the child, it has been forced sufficiently far into the pelvic cavity, and so moulded, as to be influenced by the inclined plains—the fœtal ovoid undergoes a movement of rotation, by which the head is thrown forward, so as to rest nearly over the symphysis pubis, and the breech backwards, so as to be lodged over the right sacro-iliac synchondrosis. By this change of position, the neck of the child is made to correspond in situation with the pubes of the mother. The depth of the latter being but about two inches, and the length of the former considerably

more than this, though the head and breech of the child are still lodged upon opposite points of the brim of the pelvis, the shoulder can now, and does make its escape by pressing out under the pelvic arch, while the neck is pressed firmly against the symphysis pubis within. * * * * In all cases the breech is ultimately brought to the sacro-iliac synchondrosis of the side of the pelvis at which it rests; and this movement of rotation will be tedious, every thing else being equal, in proportion to the remoteness of the breech, prior to its commencement, from this point. Besides the advantage arising from the long diameter of the fœtal ovoid—which after the movement of rotation, corresponds with the right lateral oblique diameter of the superior strait—being diminished now, virtually, by so much as the shoulder has escaped or rests under the pubic arch, the head also, with the escape of the shoulder below, is urged forward above the pubes. Of course, as the shoulder escapes under the pubes, and the head is pressed more and more forward over it, less and less of the breech must rest upon the brim of the pelvis in the rear, till finally, no longer restrained by this part, it descends into the pelvic cavity, sweeping, as it were, over the surface, and occupying the concavity of the sacrum. The head, of course, can not descend, because it is still lodged upon the pubes—a fortunate circumstance rather than otherwise, because the breech is thus allowed to be pressed onward alone. Further: on the escape of the shoulder through the vulvar opening, another change commences, which facilitates, or rather indeed is a necessary preliminary movement to this descent of the breech into the cavity of the pelvis. Heretofore, the fœtal ovoid has continued to retain its lateral curvature; but after the protrusion, in part of the shoulder, it becomes curved anteriorly, as it were, upon itself, so that we have but the antero-posterior diameter of the breech and chest conjoined, in correspondence with the long diameter of the pelvis, instead of the conjoined transverse diameters of these parts; an extent much less considerable, besides the advantage arising from the greater facility and freedom with which the fœtus may be flexed and compressed, upon its anterior than upon its lateral surface. The movement is effected in this manner: The corocoid and acromion processes, resting against the arch of the pubes, but more particularly against the left descending ramus, keeps the shoulder itself fixed at this point; but the chest and the scapula being moveable upon each other, though the latter remains fixed, the former glides upon it, from right to left, as regards the mother, till, instead of the right side itself, the right side of the

back of the child, is brought forward and downward, and rests between the labia. While the back of the child is thus brought forward, the breech, by a slight rotation of the vertebræ upon each other instead of the hip, is gradually directed against the left sacro-iliac synchondrosis, descends into the cavity of the pelvis, and is finally, as stated, thrown fairly into the hollow of the sacrum. The posterior part of the chest now escapes through the vulva, the right side, in most cases, being slightly in advance, and is soon followed by the parts below; the central part of the spine, then the small of the back, &c., protruding, till, finally, the breech presenting its broad posterior surface forward, sweeps over the perineum, and the inferior extremities are unfolded. Up to the moment of the escape of the breech, the head has remained firmly fixed over the pubes, so that any descent on its part is impossible; but, as the breech sweeps over the perineum, and tends to move forward and upward in front of the pubes, the head, participating in a movement of rotation which the whole mass, as it were, undergoes on its axis, is thrown backward and downward behind the pubes, so that, ceasing to be detained by the latter, it ascends into the pelvic cavity. In some cases, also, as the breech is braced against and sweeps over the lower part of the sacrum and perineum, the chest itself rises slightly behind the pubes. This movement—admitted by the mobility of the body on the scapula, which itself still remains fixed—is effected by the force with which the breech is pressed against the parts named, and greatly facilitates its escape over them. The left arm and head now alone remain in the pelvic cavity; but, generally, this escape is prompt and easy, owing to the complete dilatation of the soft parts, effected by the previous passage of the folded body. The head escapes as in the first or left sacro-acetabular position of the breech presentation.”

R.

4.—*Trismus Nascentium Treated by Cannabis Indica.*

In the same Journal, Dr. P. C. Gaillard records two cases of *Trismus Nascentium*, treated by Dr. De Saussure and himself, cured by the use of *Cannabis Indica*. One patient æt nine days, the other seven days, when first presenting evidence of the convulsive seizure.

1st. Ordered “the child to be constantly fed while awake, with milk drawn from the mother’s breasts and poured into the mouth, large warm poultices to be kept constantly to the abdomen; a warm bath to be given twice a day, and a tea

spoonful of the following mixture to be administered every two hours. Tinct. cannabis Indica ʒij, camphor water ʒij." For several days the child continually grew worse, until the cannabis was administered every hour, and persevered with. The child recovered—and "the medicine was continued, three times a day for some days after the disease had disappeared." The treatment of the second case was in the main the same.

In the same Journal, Dr. Williman hints the necessity of catheterism in infantile convulsions; and records a case of trismus nascentium, in which a complete recovery resulted, "after an illness of two weeks, and a constant return of convulsion during nearly the whole period, due as he was gratified to believe almost entirely to chloroform friction to the spine. Turpentine was also used in the same way with patient—ten days old—and the catheter was introduced with manifest advantage—"unspeakable satisfaction." R.

5.—*Practical Remarks upon some Important Medicinal Agents not in General Use.* BY F. E. WILKINSON, M. D.

STRYCHNIA.—Dr. Marshall Hall, in some recent papers published in *The Lancet*, speaks very highly of the beneficial effects of minute doses of strychnia, dissolved in acetic acid. I have for some years been in the habit of prescribing small doses of strychnia, and can corroborate Dr. Hall's valuable testimony in every particular; therefore any remarks of mine, upon its effects in epileptic cases, would be unnecessary.

My method has been to dissolve two grains of strychnia in one ounce of phosphoric acid of the London Pharmacopœia—a very speedy and certain solvent, and also possessing, doubtless, the additional excellent property of assisting the good effect of the strychnia upon the brain and nervous system.—Of this solution, in cases of prolonged dyspepsia, in neuralgia, indeed in many states of the nervous system requiring tone, it has been usual with me to administer, after the state of the secretions have been attended to, a dose, consisting of five minims of the above solution, three or four times daily, either alone or combined with some other appropriate remedy, according to the nature and complication of the case. This medicine has also a remarkable effect in ague. During a four years' residence at Cambridge, I had opportunities of seeing the treatment of a vast number of cases of intermittent fever, but in no one instance, as far as my memory serves me, was recovery nearly so rapid as I have seen it after the administration of this powerful remedy.

I subjoin a few cases, illustrating these remarks, whilst I know many friends who could readily corroborate these facts from cases occurring in their practices.

NEURALGIA.—July 11, 1751.—Mrs. P——, married, aged thirty-two, pale and emaciated. She has been for some years the subject of neuralgia, which attacks her whenever she takes cold, and occasionally quite incapacitates her from attending to the duties of her family. She is now suffering acutely from pain and the loss of rest. The bowels being confined, the following was ordered:—Calomel three grains; conserve of roses, sufficient quantity to make into a pill. Liquor of strychnia, (two grains to an ounce,) twenty minims; sulphate of magnesia, one ounce; spearmint water, six ounces. To take one-fourth three times a day.

12th.—The pain seems relieved this afternoon, but the patient is still suffering from loss of rest. To take belladonna, a quarter of a grain; extract of hyoscyamus, four grains; mix, and make into a pill.

13th.—Slept well; feels better. The medicine has acted too freely upon the bowels.

14th.—Is quite free from pain, but still a numbness exists in the old place; continue the mixture.

15th.—The pain has entirely left; feels more cheerful, and free from pain than she has done for many months; appetite improving.

From this time the patient continued free from pain, and gradually recovered a great amount of health and strength under the continued use of the above medicine, combined latterly with some tincture of iron.

CASE 2.—1851.—C. P——. In this case the disease had been existing more or less constantly, the pain scarcely leaving her entirely for some months. Is now suffering from bilious diarrhœa. After prescribing a dose of calomel and opium, followed by a rhubarb purge, to cleanse away irritating matter, I prescribed iodide of potassium, two grains; liquor of strychnia, five minims; water one ounce, three times a day. After taking the medicine for some days the pain entirely ceased. The treatment was continued for six weeks, and she has had no return of the symptoms for now nearly three months.

IN AGUE CASES.—Jan. 5th, 1852.—J. W—— was taken ill yesterday, just before leaving work, with violent pain in the left side, and with uncontrollable shivering, followed by fever, with some amount of delirium. and then by profuse perspiration. Has not felt quite well for some time. Is suffering from the cold stage of intermittent at the present time; looks

blue and pinched. Ordered, calomel, three grains; Dover's powder ten grains; to be made into a powder and to be taken immediately. A compound jalap powder in the morning.— Slept pretty well: medicine acted freely. Shivering returned in the morning. Altogether the patient does not think himself improved. Liquor of strychnia, forty minims; water, six ounces; to be made into a mixture; one-fourth to be taken every four hours.

7th.—The time of accession of the paroxysm was later and the attack less violent.

8th.—Continues improving.

From this time the patient gradually improved, the dose of strychnia being gradually diminished, and on calling to see him on the 14th, he had returned to work, feeling himself quite well.—*Lancet*.

6.—On the Treatment of Inflammatory Rheumatism.

By O. C. GIBBS, M. D. of Perry, Lake County, Ohio.

The present is, emphatically, the age of improvement in therapeutic science. Yet, in the enthusiasm for things which are new, our profession is, perhaps, too apt to adopt newly suggested remedial means, frequently to the neglect of those honored by time and the support of worthy names. This is certainly more laudable than the opposite extreme, that of clinging to the doctrines and practices in which we were first educated, regardless of the pathological or therapeutic improvements of the age, but, nevertheless, is reprehensible, if lacking due consideration in reference to comparative merit.

New theories in regard to the nature, and new plans in reference to the treatment of inflammatory rheumatism, have followed each other in rapid succession, and been supported by a nearly equal array of names. In reference to remedies, blood letting, purgatives, calomel, tartar-emetic, opium, nitre, colchicum, guaiac quinia, phosphate of ammonia, carbonate of potassa and soda, and lastly, lemon-juice, have each had their advocates.

In view of this discrepancy of therapeutic opinion, Prof. Wood, of Philadelphia, whose opinions, in our humble judgment, are always worthy of consideration, advises blood-letting, purgatives, and refrigerant diaphoretics. If the disease is not subdued in *two weeks*, calomel with opium is advised; and, in adynamic conditions of the system, quinia.

In our limited experience with this disease, we have tried several plans of treatment, and, so far, have found none wor-

thy of comparison with that first suggested by Dr. Chambers and published by Dr. Hope, nearly twenty years ago.

The plan consists, as our readers are doubtless well aware, in venesection, if necessary, followed by eight or ten grains of calomel and one and a half grains of opium, for an adult, at bed-time; and, in the morning, by a strong black dose, sufficient to secure four or five stools. This night and morning medication, is to be continued until a cure is effected, excepting the calomel, which is to be discontinued when the symptoms considerably abate, or the gums become at all tender.—With this treatment is conjoined, thrice a day, a saline draught, containing five grains of Dover's powder, and fifteen or twenty minims of wine of colchicum.

Under this treatment, early commenced, we have never seen endo- or peri-cardiac complication, or known a case to protract more than ten days. Perhaps, from our limited observation, we have placed too high an estimate upon the success of this plan, and it is only because we think some modern authors have estimated too low, that we make the remarks.

It is due to Dr. Owen Reese, to say that a lemon juice has never been tried by us, as suggested by him.

From our cases we select the two following, illustrative of this plan of treatment:

CASE 1st.—February 1st, 1850—Was called to see Jane T——, aged five years; had been ill one day; the left shoulder was considerably swollen, very red and painful; the right shoulder was slightly affected. Her father died from some cardiac disease; had been previously much afflicted with rheumatism, and, for the last few years of life, almost helplessly so.

Three grains of calomel and five of Dover's powder were ordered at bed-time, to be followed in the morning, by a sufficient black dose to secure a free cathartic action; a powder composed of three grains each of powdered colchicum and Dover's powder, was ordered to be taken two hours after the black dose, to be repeated every two hours through the day.

This treatment was continued until the third day, when the calomel was omitted, and the powders ordered every six hours instead of four. On the fifth day the patient was discharged cured.

CASE 2d.—December 4th, 1851—Was called to see Mr. E——, aged forty-five years; had been troubled with rheumatism for several weeks, and had been treated by a Thompsonian with colchicum, Dover's powder, &c. The knees and ankles had been the seat of disease, affecting each limb singly and alternately. When first seen by us, the left knee and

ankle were considerably swollen and painful, with but little redness and fever; the patient was not confined to the house, though unable to attend to business.

The disease was evidently subacute or chronic, and the plan of treatment proposed by Dr. Bubb, in the *London Lancet*, was adopted.

The following was advised: five grains of bicarbonate of potassa and two grains of iodide of potassium, dissolved in an ounce of water, three times a day, and five grains extract colocynth at bed time; with alkaline lotions to the affected joints. A milk diet, and a daily warm bath were also enjoined. This treatment was continued for two weeks without benefit.

Thirty grains of acetate of potash, in camphor mixture, every four hours through the day; four grains of quinia, in a pill, three times a day; and ten grains of Dover's powder at bed time, the bowels to be opened with calomel and colocynth, when necessary, were now ordered, as recommended by Dr. Golding Bird, of London. This treatment was continued for two weeks, also without benefit.

The plan suggested by Dr. Chambers, as given above, was now adopted, excepting the venesection. Eight grains of calomel and one of opium, was given every night, followed by black dose in the morning, and twenty drops of wine of colchicum with five grains of Dover's powder, in saline draught, three times a day.

The patient rapidly convalesced, and was discharged, cured, on the seventh day from the commencement of this treatment.

Dr. Watson says he never saw but one case of inflammatory rheumatism, occurring before puberty, uncomplicated with cardiac disease. The first case given here, though the patient was quite young, was entirely exempt from such complications.—*Medical Examiner*.

7.—*Rules for the Administration of Chloroform.* By M. BAUDENS.

1. Never go, intentionally, beyond the limit of cutaneous insensibility.

2. The management of chloroform may be divided into three stages—before, during, and after the inhalations.

3. *Before: Counter-indications.*—Study the patient's constitution; find out whether there exists organic lesions of the heart or lungs; these would be a counter-indication; as are also asthma, aneurism, phthisis, chlorosis, anæmia, chorea, &c., and predisposition to cerebral congestion.

4. The patient's mind should be perfectly calm, and the medical attendant should speak of chloroform as a boon, when carefully administered.

5. The patient should be wishing for anæsthesia, and have full confidence in his medical adviser. If he should feel any apprehension or gloomy forebodings, chloroform should be steadfastly refused.

6. Patients have in all times died from the fear or pain of operations; but the influence of *fear* is now no longer taken into account, and chloroform accused of all the mischief.

7. Chloroform must never be given but for operations of a certain importance, and patients should be fasting.

8. Attention should be paid to the debility which naturally follows serious operations and considerable loss of blood, for the organism thus loses its power of resisting the influence of anæsthetic agents.

9. The operating-room should be of good dimensions, easy of ventilation, and every article necessary in case of danger should be at hand.

10. *During the Inhalation.*—Chloroform should be administered, in hospitals, by persons specially appointed for the purpose; and in town, by practitioners who make it their exclusive occupation.

11. The quantity of chloroform given should be carefully measured, about fifteen minims being taken at once.

12. The length of time during which the patient is inhaling should be counted upon the watch, as also the pulse and the number of respirations. Note should be taken of the force and frequency of the pulsations of the heart; if the latter fall *below sixty*, the inhalation should be stopped.

13. The patient should be in the recumbent position, the head slightly raised by a pillow; and should be given in doses of fifteen minims, the time between them being made gradually shorter.

14. The handkerchief should be first held at a little distance, and gradually brought nearer the face, the patient being spoken to in a kind and encouraging manner.

15. The latter should be frequently asked, whilst he is being pinched, what is done to him; and when he begins to answer with ill-humour, you pinch him, he is on the point of losing the faculty of sensation.

16. As soon as he answers no more, feeling is abolished; the handkerchief should immediately be taken away, and the operation begun, for we should never wait until muscular resolution is complete.

17. Excitement, which often marks the first degree, is a

mark that the handkerchief should be *removed*, far from being kept on, as is generally practised.

18. The time has now come to watch the heart and the respiration. On the slightest retardation, and if the symptoms of anæsthesia go on, or are even increased, means should be immediately taken to bring back the insensibility to the first degree.

19. When spasms of the larynx or much cough occur, if foam come to the mouth, if the pulse falls, if breathing becomes embarrassed, if there appears any mark of syncope or cerebral congestion, the inhalations should at once cease.

20. Slight struggling may be resisted, but violent excitement, and the exclamation of "I am choking," should be followed by the immediate removal of the handkerchief.

21. For long operations the inhalations should be intermitted, and the chloroform may be resumed as soon as the patient begins to sigh or move about. Anæsthesia has in this manner been kept up for one hour.—*Lancet*, Oct. 29, 1853.

8. *Gutta Percha Catheter*.—*Fracture of Patella*.

Dr. R. P. Thomas—(Transactions of the College of Physicians of Philadelphia)—says "the gutta percha catheter is an admirable instrument, gradually becoming moulded to the shape of the passage, and thus admitting of being employed without a wire. Its durability and want of irritating properties are highly in its favor where a tube is to be retained for some time in the urethra." Dr. Thomas has probably permitted to pass unnoticed a record in some one of this country's journals, of a case, which presented to a surgeon requiring the removal from the urethra, of a portion of gutta percha catheter, which had broken off, from some reason, most likely the acknowledged brittleness of the material.

Dr. Neill—at the same meeting of the College—stated that he had recently treated fracture of the patella "according to a plan which he believed to be novel. The fractured portions of the patella were brought in contact, and retained so, by passing a strip of adhesive plaster above the upper fragment, and bringing its two ends down below the knee, and another strip in the opposite direction, and thus repeating the strips until a sufficient force was acquired to keep the two fragments in contact. The strips so applied were retained *in situ* by a few transverse strips applied above the knee. In case of any retraction of the upper fragment, apply new strips above and below the patella, without disturbing those already on." R.

CHEMISTRY AND PHARMACY.

9.—*Contributions to Pharmacy.* By JOHN P. METTAUER, M. D., LL. D., of Virginia, Professor of the Principles and Practice of Medicine and Surgery, in the Medical Department of Randolph Macon College.

It will not be denied that the operation of therapeutical agents is essentially influenced by the mode by which they are prepared.

This fact, so generally true, is particularly exemplified in the preparations of cinchona, cantharides, colchicum, guaiacum, and several other medicinal substances of which I shall speak presently.

For more than twenty-five years, my attention has been particularly directed to this subject, and, during this period, I have adopted several new methods of preparing some of the articles of the materia medica, and have satisfied myself, by repeated practical trials, that these preparations possessed superior efficacy to those generally employed.

Many years ago I prepared an acetous infusion of cantharides, for blistering purposes. This infusion was first designed for vesicating the scalps of infants, without removing the hair; and its action was very satisfactory. It was applied simply by wetting the surface of the head, and the hair nearest its roots, and then carefully covering the parts with a cabbage leaf, or oiled silk, to prevent the too sudden evaporation of the blistering fluid. When other parts of the body were to be blistered, a thin compress of bibulous paper, or cloth saturated with the infusion, was applied to them, and carefully covered with oiled silk. To insure speedy and effective vesication, I usually re-applied the tincture two or three times, after intervals of half an hour. I found this agent equally as efficient and certain in its action with adults as with infants. It rendered the removal of the hair unnecessary, as it blistered every part of the surface, even when a very thick head of hair existed. This preparation has been used by many of my medical friends, and with entire satisfaction. Within the last ten years, I was induced to prepare an æthereous solution of cantharides as a vesicant, and have found it far more prompt and certain in its operation than the acetous infusion. It may be applied in the same manner as the latter. Frequently, merely wetting the skin with the solution, without covering the part, will blister; especially in infants. When

adults are to be blistered, the preparation should generally be applied with a thin compress, and carefully covered, as already suggested—moistening the compress from time to time, until the skin is decidedly reddened. I have found this by far the most convenient and reliable means of blistering that I have ever employed. This æthereal tincture of cantharides is also an efficient internal remedy. As an emmenagogue and diuretic it has greatly exceeded my expectation. The æthereous menstruum seems not only to promote the operation of the cantharidin upon the genito-urinary organs; but at the same time to guard against strangury. I now use this preparation of cantharides almost exclusively, both externally and internally, when the lytta is indicated, and have done so for seven or eight years.

The remarkable efficacy of the æthereous preparation of the Spanish Fly induced me, five years ago, to employ spirits of nitric æther as a menstruum for cubebs, colchicum, guaiacum, squill, ergot, gossypium, sanguinaria, ipecacuanha, digitalis, nux vomica, and some other articles of less importance. The æthereous tincture of cubebs is a most valuable remedy in all the sub-acute inflammations of the bladder, of the urethra; of the uterine cavity, and of the mucous lining of the stomach and intestines. It should be administered in some mucilaginous vehicle.

The tincture of colchicum is applicable to the treatment of all of the cases demanding the use of the colchicum, and is decidedly preferable to the vinous seminal tincture now in use, by reason of its tendency to act on the urinary system. It is very well adapted to the treatment of sub-acute rheumatism, gout, œdema, and neuralgic rheumatism, especially if the urinary secretion is materially diminished in quantity. In the bloating occasionally connected with the dysmenorrhœa, a combination of this tincture with the æthereous tincture of cantharides, sanguinaria and gum guaiacum will be found a most valuable remedy. It should be taken three or four times daily in an infusion of pine tops, in doses of ten to twenty drops each. The same combination will also be found valuable in the sub-acute state of gout and rheumatism.

The æthereous tincture of gum guaiacum is superior to the preparations of that article now in general use in the treatment of rheumatism by reason of its tendency to act on the urinary system; and the same may be said of it as an emmenagogue when there is rheumatic irritation of the uterus as an associate cause of dysmenorrhœa.

The æthereous tincture of squill is adapted to all cases in

which squill is indicated, and is an elegant preparation. In dropsy, œdema of the mucous lining of the larynx, and of the lungs, in asthma, and as an expectorant and diuretic it will be found a most convenient and valuable preparation. A combination of equal parts of this tincture and of the syrup of lobelia inflata taken three or four times daily, in doses of ʒss. to ʒj. each, is the most efficient remedy I have ever used in asthma.

The æthereous tincture of ergot is best suited to cases of inaction or torpor of the uterus connected with debility or exhaustion; it may be used either as an emmenagogue or as a parturient. In uterine hæmorrhage, or menorrhagia dependent on debility, or exhaustion of the uterus, it will be found a valuable remedy. Its action upon the uterus is greatly influenced by the æthereous menstruum. It is best to give it in some diuretic vehicle; such as pine tops tea, or flax seed or elm tea; and it may be taken in doses of ʒss. to ʒij. once in four or five hours.

The tincture of gossypium is possessed of properties very similar to that of ergot, and may be employed in like doses with it, and in similar diseases.

The tincture of sanguinaria is valuable when combined with the tinctures of cantharides guaiacum, colchicum, cubeb, and indeed any other emmenagogue, in the treatment of dysmenorrhœa. It is also a valuable expectorant and diaphoretic in pneumonia, bronchitis, and œdema of the mucous lining of the air passages. It is administered in doses from ʒss. to ʒij., once in three or four hours. This tincture may also be employed alone as a diaphoretic and expectorant.

The æthereous tincture of ipecacuanha is so closely assimilated to the tincture of the sanguinaria, in its therapeutical properties, as to be applicable to the treatment of the same diseases. It is an elegant and most convenient preparation. In typhoid fever it will be found far superior to the ipecac pill as a diaphoretic, especially when the tongue is dry and the thirst urgent. It may be used also in typhus fever, or indeed in any febrile affections during the sub-acute stage. This valuable preparation acts both as a diaphoretic and diuretic in these cases, as well as an expectorant.

The æthereous tincture of digitalis is a far better preparation than the alcoholic, on account of its greater activity; and this it derives chiefly from the æthereous menstruum. In doses from ʒss. to ʒj., in some diuretic infusion, taken three times daily, it will be found well adapted to all such cases as require the foxglove.

The æthereous tincture of nux vomica is especially indica-

ted in the treatment of seminal debility, or to speak more properly, debility of the generative organs. In this, the gravest of human ills, after such preliminary treatment as may be demanded for the correction of constipation, and prostatic tenderness, this tincture will be found a most excellent means of restoring the erections. It is also valuable in exciting appetite for food, and in the invigoration of the digestive organs. This preparation is well adapted likewise to the treatment of paraplegia, especially when the bladder and rectum are implicated, as well as such other forms of paralysis as demand the *nux vomica* or its alkaloid. It may be given in doses from ʒss. to ʒiiss. three times daily, before or after meals, in some bitter infusion. The cold infusion of wild cherry bark I have generally preferred as the vehicle for it.

The æthereous solutions or tinctures are more readily prepared, requiring to be digested for a less time than the alcoholic, and keep without the least deterioration. They are also adapted to those conditions of the constitution in which alcoholic menstrua would be objectionable.

Hydargyrum cum creta. This valuable preparation of mercury is usually formed by triturating ʒiij. mercury with ʒv. of prepared chalk, until the globules are extinguished. This is a tedious process, and the resulting powder is not of uniform strength, nor is the mercury completely rubbed down. Indeed, it is questionable whether the powder, when apparently well formed, always contains mercury, as a compound may be readily formed by uniting other coloring substances with chalk, to imitate blue mercurial powder; and I think I have met with such imitations several times. The blue powder that I have procured from the shops has generally disappointed me; and for a number of years I have prepared it myself according to the following method:

Take one part of pure starch; eight parts of prepared chalk; and sixteen parts of mercury. Reduce the starch to fine powder. The chalk may now be added, and after being well mixed, the mercury can be united. The powder must next be moistened with water, but not to the extent of wetting it; and the whole rubbed until nearly dry, when the mass should be again moistened and rubbed dry. In this manner the process must be repeated from time to time, as may be convenient, until the powder assumes a uniform bluish appearance. After the chalk seems to be saturated with the mercury, rub the mass perfectly dry, and then moisten it sufficiently to make it adhere to the surface of the mortar by pressing with the pestle. By carefully passing the pestle over

the adhering mass, so as to render its surface smooth, the superfluous mercury will now escape from it in small globules, and fall to the bottom of the mortar, and the separation may be facilitated by striking the bottom of the mortar against the table repeatedly, and by pouring the mercury over the surface of the mass where any globules appear. The mercury may now be removed from the mortar; and as soon as the mass becomes sufficiently dry, the trituration must be renewed and continued until the mass becomes a smooth, dry powder. Prepared according to this method, I have used blue powder in my practice more than twenty-five years, and have uniformly found it far more certain in its operation than that obtained from the shops. I prescribe it in the ordinary doses, or nearly so, and yet I am satisfied it is stronger than that in general use. I invariably direct it to be administered nearly dry, united with brown sugar, and to be mixed in a cup by stirring the powder and sugar together with a straw, or the point of a knife. The dose then may be taken into the mouth and swallowed, first with the saliva, and afterwards with a mouthful of water. This powder should never be mixed in a silver spoon, or any other utensil possessing an affinity for mercury, or the powder may be rendered entirely inert; and such an accident once befell a patient of mine, who nearly lost her life before the cause of failure of the medicine in producing its proper effects was discovered.—*Virginia Med. and Surg. Jour.*

MEDICO-DENTAL SCIENCE.

10.—*Periodontitis.* By D. B. WHIPPLE, M. D.

In the acute stage Dr. Whipple (*Dental News-Letter*) believes the most effectual means to produce resolution is local depletion, by leeching, for which purpose he uses the artificial leech introduced some time ago. The inefficiency of this instrument complained of by some, he thinks attributable to insufficient lancing.

“My plan, (he says,) and upon which is based all my success in their use, is to lance very deeply and freely, and for the purpose, I use the physician’s spring lancet, setting it to cut entirely through the integument, and making, in some instances, a crucial incision. My preference for using such a lancet is, that I can make the required incisions more direct, and so quickly that very little if any pain is occasioned. By thus severing a great number of the congested blood vessels,

a large flow is established, and favoring the determination and relaxation, by bathing the part with warm water, I am enabled to obtain as much as we would require by the natural leech. * * * After the application of the leech,

I direct the part to be bathed with

R. Sulph. Ether,	-	-	-	-	-	ʒss
Gum Camph.,	-	-	-	-	-	ʒss

By the ether we have the anodyne influence, and refrigerant also, from its volatile properties, and a tonic action is exerted upon the dilated and relaxed vessels. The camphor is added for its discutient properties. (This combination may be used as a prophylactic remedy when slight vascular excitement is evidenced.)"

11.—*Ophthalmitis from wearing a Dental Substitute not properly adjusted.*

In the *Am. Jour. Dent. Science*, (Jan. '53,) H. L. Burpee, of Suffield, Conn., gives the case of a lady who came under his care, from which we extract as follows:

"Mrs. F. has been somewhat enfeebled for a number of years by a chronic weakness of the spine, and a corresponding morbid condition of the nervous system, which had been greatly aggravated by wearing the teeth above mentioned. In the spring of 1849, this dental substitute for the superior maxilla, had been constructed for her by a dentist from a neighboring town, some twelve miles distant, (who comes this way frequently for the purpose of business,) in whom Mrs. F. reposed much confidence. At the first trial the plate was not sufficiently well adjusted to prevent its being displaced by a slight touch, or by deglutition.

"The patient's mouth, in consequence of the efforts of the dentist to make the teeth keep their place, had become very sore and troublesome. Some alterations in the plate were made, and it was permitted to remain, drawing very hard by means of the vacuum formed in the plate. Notwithstanding the patient complained bitterly of the suffering caused by the plate drawing so hard, yet she was ordered to wear the teeth continually, night and day, until she became accustomed to them, and the tenderness had subsided. A high state of inflammation was now manifested extending over the entire surface of the gums and palatine arch, and at this crisis of affairs, inflammation of the optic nerve commenced, and continued until chronic ophthalmia was established upon a tolerably firm basis."

Dr. B. consequently advised a new plate which he constructed and adjusted in a proper manner; and says: "The trouble about the eyes has been gradually and decidedly im-

proving ever since the new plate was inserted, and the soreness and tenderness of the gums and the palatine arch have entirely subsided, and the general health of the patient very much improved. Here, then, it is plain that in consequence of a badly fitted plate in the mouth, (or rather a *plate not fitted at all*,) a high state of inflammation of the gums and mucous membrane of the palatine arch was produced, and as the plate was continually worn, this state of affairs was constantly kept up. The superior maxillary nerve was necessarily involved, and by its connection with the ophthalmic branch at the ganglion of Gasser, that nerve became similarly affected; and thus the eyes were made to suffer, whether by means of sympathetic laws or direct communication, is a matter of too little moment to be discussed here. The diagnosis certainly appeared plain to me, that ophthalmia in this case was produced by the dental substitute before referred to."

12.—*On the Restoration of Hearing by the insertion of Artificial Teeth.* By JAS. S. GILLIAMS, M. D., D. D. S.

Eustachian Tube.—The principal object, for the fulfilment of which this tube exists, wherever there is a tympanum, appears to be the maintenance of the equilibrium between the air within the tympanum, and the external air, so as to prevent inordinate tension of the membrane tympani, which would be the case if too great or too little pressure was on either side, and the effect of which would be imperfection of hearing. It is not the increased or the diminished density of the air, either side of the membrane, which is of the chief importance, but the tension of the membrane which is necessarily produced and which always interferes with the integrity of hearing. It is on this principle that the following cases may be explained:

In the year 1849, I received a message from Mrs. M., through the servant, with a set of teeth that required repairing, with the request that I would have them attended to as soon as possible, as Mrs. M. could not hear without the teeth. This circumstance first attracted my attention, and when at a subsequent time she came to the office, I made more particular examination, and found a great difference in her hearing in regard to what I said to her when her teeth were out, and when her teeth were in her mouth. About a year after a lady applied for the insertion of an entire set. She had never worn artificial teeth, and her hearing was so much impaired that I was obliged to touch her chin and bellow in her ear when it was necessary that the mouth should be opened. When the teeth were inserted and the hand glass presented

to her with the request that she would look at them, she suddenly exclaimed, "I hear every thing you say: I can hear you perfectly well." The pleasure of thus recovering the power of hearing was so great that she declared this acquisition to be in her estimation of a great deal more importance to her than the ordinary advantages of the teeth. The power of hearing continued, and she viewed the improvement in speaking, chewing, and the appearance of the mouth of secondary consideration. I have since witnessed the same phenomenon partially produced in several other cases. One lady said she could not "listen without her artificial teeth." In two other cases, something of the same kind was produced, but not in so marked a degree. These observations have led me to inquire whether any change could be induced in the orifice of eustachian tube by the excessive approximation of the jaws, such as to close or cover the orifice, or in any way impede the transmission of air through it. If we suppose, at the same time, that deafness arose from want of balance between the air within the tympanum and that of the atmosphere, or that external deafness prevailed from causes affecting the membrane tympani, or from obstructions of the external meatus whilst the sensibility of the nerve was preserved, the causes of deafness might be more clearly understood.—*Dental News-Letter*.

13.—*A New Method of Treatment for Fractures of the alveolar portion of the Lower Jaw.* By M. ROBART.

(*Dublin Quarterly Journal of Medicine*, May, 1853.)

In a review of the present state of French and English surgery, the subjoined notice of this novel mode of treatment occurs:

"A piece of lead, half a line in thickness, is to be moulded exactly upon the lingual border of the maxillary bone. To retain this plate in its place, a needle armed with a silver thread, should be passed along the internal surface of the maxilla, through the floor of the mouth, and drawn outwards; the extremity of the thread, conducted in a similar manner along the internal surface of the bone should be brought out through the same orifice. The two ends of the thread thus drawn out under the chin, embracing the fragments in the loop which they form, are to be fastened round a small roll of adhesive plaster, placed beneath the chin, and twisted until the leaden plate is firmly fixed in its place within the teeth."

This account is taken from the 42d volume, p. 24, of the *Bulletin Therapeutique*.—*Half-Yearly Abstract of the Medical Sciences*.

MEDICAL INTELLIGENCE AND ITEMS.

In Cincinnati a violent agitation recently took place among the profession, in regard to the Commercial Hospital. This institution, now under the management of the Ohio Medical College, and the only one in the country, it is said, controlled by a medical school, was alleged to be very badly managed, and a strong effort made to wrest it out of the hands of the Faculty. The subject was discussed by members of both parties in the profession, at a public meeting, in which some appear to have earned more laurels for beligerant qualities than for urbanity and decency. The *Western Lancet*, for Nov., has a leader on the subject, which, though warm is quite temperate and dignified. It thinks the College retains a lasting hold on the Hospital.

The *Virginia Medical and Surgical Journal*, though a strong advocate for a "State Medical School," is opposed to the "State Medical Journal," so strenuously advocated by the *Stethoscope*. It thinks a Journal could not be creditably managed by a corps of editors, as proposed, and that it would also be the means of involving in debt, and breaking up the Society, &c.

The medical press and profession will be grieved at the loss of Dr. A. Hester, of the *New Orleans Medical and Surgical Journal*, who died of cholera, (the approach of which he was the first to announce,) in New Orleans, Dec. 1st, 1853. He formerly resided and studied medicine in Clarksville, Tennessee. After graduating, in Philadelphia, he went to Holly Springs, Miss.; whence (in 1839,) he removed to New Orleans, where, after struggling for some years through poverty and discouragement, he rose to the first eminence, both as a practitioner and writer.

The *New Orleans Medical and Surgical Journal* is for the present conducted by Dr. E. D. Fenner, with whom and Dr. Hester, the enterprise originated, 1844.

The *Medical Chronicle*, (Montreal, Canada,) thus speaks of our lamented associate, the late Dr. Scruggs:

"The Southern Journal of Medical and Physical Sciences.—We perceive by the columns of this Journal that Dr. Scruggs, one of its corresponding editors, has fallen a victim to that fearful scourge, yellow fever. Fearlessly pursuing the duties

of his profession, with the thought ever before him, that he was liable, from constant exposure, to be cut down at any time by the disease, he exhibited that moral courage, the manifestation of which constitutes the most elevated heroism, and which has so eminently distinguished, during seasons of plague and pain, members our noble profession."

The *Medical Examiner* for December, gives from the London Medical Times, account of three cases of death from chloroform, occurring during the month of October. It is thought by a correspondent of the Times that in the hospital practice great error prevails in its administration, and that "sufficient precautions are not used to allow a free admixture of atmospheric air with the anæsthetic."

Since then a case has been reported in the *Buffalo Medical Journal* for December, by Dr. T. K. DeWolf, of Chester, Mass., bearing date of October 3d, 1853; and another is recorded in the January No. of the *New Orleans Medical and Surgical Journal* for January, as occurring in the Charity Hospital. The report has the initials of Dr. Hester, but is without date. These fatal cases naturally re-awaken the alarms of the profession.

Drs. Smith and Biddle have retired from the Medical Examiner, which is now edited by Dr. Sam'l. L. Hollingsworth.

Dr. James B. McCaw has recently become associated with Dr. Otis in the management of the Virginia Medical and Surgical Journal.

Dr. S. W. Butler, hitherto appearing only as the publisher, has now also the editorial control of the *New Jersey Medical Reporter*, in consequence of the intended removal, to Philadelphia, of Dr. Parrish, who, however, is still identified with the work as associate editor.

The *Stethoscope* (hitherto edited by Dr. Gooch) has finally been purchased by the committee of the Medical Society of Virginia, for the purpose of a State-Society Journal, at about \$800. So says the Virginia Medical and Surgical Journal.

The bill legalizing dissections presented to the Legislature of the State of New York has passed the Senate, and is now before the Assembly or lower house, with a fair prospect of becoming a law.

W.

EDITORIAL NOTICES.

With this number of the Journal we have the pleasure to present to our patrons a large and beautiful Geological Map and Section of the entire State of Tennessee, drawn from personal observation by its author, and executed in the best lithographic style by the excellent artist, Mr. F. Gessman, now of this city.

Every scientific physician will at once see the importance of understanding the varied topography of a country, by way of comparison with the various diseases prevalent in the different sections, that he may deduce sound conclusions as to the origin, modifying influences, and treatment of different forms of disease in different localities, as well as to the hygienic and therapeutic value of change of locality, &c. We need not, therefore, advert to the utility of this feature in the Journal, which was commenced in the first volume.

We also further increase the size of the Journal,—the present number containing 80 pages—which amount will be kept up each succeeding number, thus materially increasing the size of the volume beyond what was promised in the prospectus.—We hope, therefore, no one will accuse us of flagging behind our promises.

With the bright recollection of evidences of approval that cheered us on when, in starting this enterprise, the future was involved in uncertainty, we now look with confidence to the profession for their continued encouragement, both in the way of communications and patronage; reminding them that the Journal relies solely upon its subscription for its vigorous support, being in no way connected with, subservient to, or sustained by, any means of pecuniary emolument to be furthered by its publication. As the excess of its receipts over the ordinary expenses of publication is applied to the enlargement and improvement of the work, it is believed that those who approve its objects will take pleasure in promoting its prosperity. For the same reason, we hope our subscribers will be prompt in their remittances; and we are sure that no one who reflects a moment would wish to put us to the necessity of “keeping accounts,” making out and mailing “bills,” or *dunning* in any other form,—a sort of *labor* which we most sincerely dislike.

As heretofore, the Journal will maintain a high and truly INDEPENDENT course, FAITHFUL to the great interests of Medical Science and the honor and dignity of the Profession in the South West. A foe to empiricism

and quackery in every form, it will be prompt to expose them, whether in "high" or low places, whenever called for. But believing, as we must, that the best way of exterminating the evil consists less in elaborate expositions and long or frequent invectives through the medical press, than in well directed efforts towards the perfection and ennoblement of our honored science, we are willing to leave the former task mainly to others, while directing our labors towards the latter.—The high moral character of the profession must also be guarded and defended, for this is the sheet anchor of its respectability and influence. To this end will the Journal ever strive to lend its voice and example. Although it seeks not a warfare with sensuality, it will be ready to speak out upon suitable occasions; and its own pages, at least shall be kept unsullied.

✂ In our next number we hope to have the satisfaction of presenting the likeness of our late highly esteemed and much lamented associate—Dr. R. L. SCRUGGS—with a biographical sketch of his professional career

EDS.

TO THE PHYSICIANS OF TENNESSEE.

GENTLEMEN:—At the annual meeting of the State Medical Society, in 1852, special committees were appointed to investigate and report to the next meeting upon the following subjects, viz:

- 1st. The history of Epidemic Diseases in Tennessee.
- 2d. The history of Continued Fevers in Tennessee, their varieties, semiological, anatomical, and other characteristics.
- 3d. The history of Operative Surgery in Tennessee.
- 4th. The history of Obstetric Surgery.
- 5th. The Adulteration of Drugs, Medicines and Chemicals.

Owing to the difficulties in the way of getting competent medical gentlemen to communicate the necessary facts, only one of the committees appointed was prepared to make a report to the last meeting. By vote of the Society, however, the other committees were continued; and we, to whom "the history of Continued Fevers" was referred, take this opportunity of again calling the attention of medical men, and especially those to whom this No. of the Journal will be sent, to the fevers of the State. And let us urge you, gentlemen, to furnish us, at your earliest possible convenience, with any valuable information in your possession, documentary or otherwise, pertaining to these forms of fever. Your attention is particularly directed to the following points of observation:

- 1st. As to the agents or causes which you suppose to be operative in the production of this class of fevers.
- 2d. Causes and combination of circumstances which favor their general prevalence within your range of observation.
- 3d. Causes and conditions which retard their progress.
- 4th. Temperament, age, sex, color, occupation, diet and habits of those most liable to either form of fever.

- 5th. During what years and months of the year most prevalent.
- 6th. Influence of atmosphere as to temperature, humidity and dryness, upon this class of fevers.
- 7th. Prominent symptoms during the several stages, cephalic, abdominal and thoracic; which the most uniformly present in the fatal cases, and which in those of the opposite character.
- 8th. Treatment, ratio of mortality, post mortem appearances.
- 9th. Medical Topography of your section of the State; nature of the soil; general geological character.
- 10th. Quality of water, whether freestone or limestone, &c.
- 11th. The history of Continued Fevers of Tennessee from the earliest records within your reach, and especially from the earliest period of your personal observation.
- 12th. Are the multiform phases of Continued Fever as met with in Tennessee, indicative of the identity or community of those fevers? And if not identical, what are the distinctive differences observed?
- 13th. In what respects do causes producing Typhus and Typhoid Fevers differ from those producing other Continued Fevers?
- 14th. Is Typhoid Fever contagious? If so, at what period and under what circumstances?
- 15th. In what proportion of Typhus and Typhoid patients have you observed the *rose colored lenticular spots*? In what proportion Sudamina? Desquamation of the Cuticle, etc.?
- 16th. The character of the several forms of Continued Fever prior and subsequent to the first visitation of Asiatic Cholera in the Mississippi Valley.
- 17th. A succinct analysis of the prominent pathological phenomena peculiar to the two periods in the history of these forms of fever.
- A correct history, from the respective committees in Tennessee, would be a matter of common interest in the profession throughout the country, and lead to the most salutary improvement in general practice. We do hope, therefore, that physicians in the State will feel it their duty to contribute to the promotion of science and human happiness, by heartily co-operating with each of the committees.
- Those unable to give information upon *all* the above points, will oblige us by communicating such facts as they may have throwing light upon any department of either form of Fever.
- W. P. JONES, M. D., }
J. W. KING, M. D., } *Nashville.*
W. T. BASKETT, M. D., *Murfreesboro'.*

MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

The Seventh Annual Meeting of the American Medical Association will be held in the city of St. Louis, on Tuesday, May 2d, 1854.

The Secretaries of all Societies, and all other bodies entitled to representation in the Association, are requested to forward to the undersigned correct lists of their respective delegations, *as soon as they may be ap-*

pointed; and it is *earnestly* desired by the committee of arrangements, that the appointments be made at as early a period as possible.

The following are extracts from Art. 2d of the Constitution:

"Each local Society shall have the privilege of sending to the Association one delegate for every ten of its regular resident members, and one for every additional fraction of more than half this number. The faculty of every regularly constituted Medical College or chartered School of Medicine, shall have the privilege of sending two delegates. The professional staff of every chartered municipal hospital, containing a hundred inmates or more, shall have the privilege of sending two delegates; and every other permanently organized medical institution, of good standing, shall have the privilege of sending one delegate."

"Delegates representing the medical staffs of the United States Army and Navy, shall be appointed by the chiefs of the Army and Navy Medical Bureaux. The number of delegates appointed shall be four from the Army Medical Officers, and an equal number from the Naval Medical Officers."

The latter clause in relation to delegates from the Army and Navy, was adopted as an amendment to Article 2d of the Constitution, at the last Annual Meeting of the Association, held in New York, in May, 1853.

E. S. LEMOINE,

One of the Secretaries, St. Louis.

EDITORS SOUTHERN JOURNAL:

Dear Sirs:—In compliance with a resolution of the State Medical Society passed at their last annual meeting, I appoint the following named gentlemen to represent said Society in the American Medical Association at their next meeting, to be held in St. Louis, on the first Tuesday 1 May next, viz:

DR. J. A. BLACKMORE, Gallatin.

" THO. LIPSCOMB, Shelbyville, Tenn.

" W. T. BASKETTE, " "

" J. W. RICHARDSON, Murfreesboro', Tenn.

" B. W. AVENT, " "

" R. S. WENDALL, " "

" J. J. ABERNATHY, " "

" E. B. HASKINS, Clarksville, "

" D. F. BROWN, Columbia, "

" S. S. Mayfield, Franklin, "

" J. S. PARK, " "

" WALLACE ESTELL, Winchester, "

" R. C. FOSTER, Nashville, "

" D. W. Yandell, " "

" J. W. KING, Nashville, Tennessee.

" R. M. Porter, " "

" A. H. BUCHANAN, " "

" J. B. LINDSLEY, " "

FELIX ROBERTSON, *President.*

R. C. FOSTER, M. D., *Cor. Secretary.*

Nashville, Feb. 24, 1854.

"TO THE MEDICAL PROFESSION."

The above is the caption of an article in the Editorial Department of the "Nashville Journal of Medicine and Surgery," for February, as an offset to the notice taken in our last of the Editor's (Prof. Bowling's) *Quack Festival, &c.*

The article carries with it its own refutation and condemnation, since nearly every quotation from us is *perverted both in language and sentiment*, and since it has forced an exhibition of the proof, already "printed" to hand, of the truth and justness of our strictures. But it contains certain imputations, which we are at least gratified to repudiate OPENLY. And we may as well, once for all, notice the other points in order.

The article is in the form of a series of Resolutions, with preface and preamble prefixed, *purports* to come from the Medical Society of the University of Nashville—which is composed of Students and Professors—and with official formality, is signed by President and Secretaries;—not, however, as it would imply, the President of the Society, (who is a Professor,) but the "President" of the *Committee!* We are therefore put to the trouble of seeking its author. It is not attributable to the "President," or "Secretaries," for they must act the will of the Society, whether their own or not; nor to the Society, for it has not the signature of *its* President; and the Committee, whether majority or minority, are not given. It is virtually anonymous. Yet we think its paternity need not be mistaken. The general impression seems to be that it is due to the author of the Address himself—that at least, the ideas and plan are his, and that he had the "fixing up". And, as with the poem, whose "publication" he could not hear to, he was (according to the Preface,) called upon to "devise some plan" to furnish copies—and cut the Gordian knot by the astounding feat of having the book "*printed* but not *published*,"—who more likely to be called upon to devise a plan for shifting the disgrace of it from his own shoulders? Indeed, we see his handicraft and "foot-prints" throughout very distinctly. But no matter. It appears in his Editorial, with his knowledge, in defence of his production, without comment, and thus endorsed, he is responsible for it, and we shall govern ourselves accordingly. And certainly he would not thus publish from his own students what he cannot sanction, when dealing in "personalities." Now, we have no complaint to make. We used, it is true, no offensive personalities or epithets towards any one; but we may have struck his bantling hard—we meant to do so—and fain would have struck hard enough to

knock the thing into Nonentity, if at the expense of sending its author with it, and so wipe out at once the stain from the College. We have, therefore, no complaint to make. Only we think the undaunted Editor of a journal, "having inscribed upon it, to honorable medicine," might have come out on his "own hook," instead of fencing himself behind the students, when the "honor" of his own production was at stake. He should be able to take care of himself, if unjustly assailed, and if a blow was aimed at the class, he should defend *them*, not they *him*!

But the article proceeds as a preliminary step to exculpate the author of the poem, by throwing the responsibility upon the students. He, it says—"well known for his pleasant satire"—was invited to deliver "an Address," and at their "earnest solicitation" was "induced to permit" them to have copies "printed" for their "special inspection, but not PUBLISHED." The same precaution is taken in its Preface (as referred to in our strictures,) but there it is stated that it was furnished for "themselves and friends;" so that a wider circulation seems originally to have been contemplated. But it was *not* "PUBLISHED," only "*printed!*" And, therefore, we suppose, not a subject for comment. We care not about the quibble on a word. It was furnished the class, to be mailed to their friends, &c.—sold for a dime a piece, (to others than students,) and plenty enough until the appearance of our "notice"—which had the effect to "shut up shop." It came dressed in "publication" garb, title page, preface, date, locality, &c., and is sent abroad dignified with the name of the Nashville "University" stuck upon it. Why all this? Why, at least, prejudice the Literary Department, yet unborn, by the association? Why not spare the medical class a "preface," (was this for *their* "special inspection,") putting the fault of its appearance to their charge, making them to appear as in a delirium of ecstasy over it, and as almost dogging the author to death by "importunities" for copies?

Not published! Does secrecy mend the matter? A stealthy influence is certain and direct, while an open one admits of counteraction and rebuke, and publicity may paralyze its power by exciting disgust.

"Vice is a monster of so frightful mien,
As, to be hated, needs but to be seen;"

Unless "*seen too often*," and unless *passed off for Virtue*, and as such, sanctioned by good authority. But the production in question would evade exposure and reproof on the plea of not being designed for publicity—would ward off criticism by "NOT PUBLISHED," stamped like the mark of Cain, on its forehead! While if only delivered, it were none the less a just subject for public reprehension.

But the students are to blame—they would have "copies!" Did they dictate its character? Did they enter the author's brain and suggest the ideas and imagery? Having been delivered, what special harm to publish? If fit for that, why not for this? The last line of the poem, promising to "give the world" a second "*volume*," might suggest that the author looked to its *publication in book-form*, and only waited for "earnest solicitation." Moreover, curiosity to see how the thing would "look" in print, to get at the drift or supposed pungent wit couched in the obscure

passages, which indeed constitute the greater part of it, might easily influence to seek its publication, as well as other reasons.

We therefore cannot see any loop-hole of escape for the author, much less a ground for turning the attack upon the Class. If the breeze raised about this, stops the publication or delivery of any more such, they will have done good service by drawing it out to the light. We now leave this "knotty point," this "strong hold," so pertinaciously adhered to.

The Preamble, professing to *quote our language*—which so far as refers to what we said of the *character of the poem* is correct enough—broadly asserts that *we* declare "that this production," (here represented as "slandered," but soon to be vindicated,) "is sanctioned by the Nashville University, and that the present class are willing disciples"—professing, we say, to quote our own words. We neither so "declared" nor intimated. The part of the sentence relating to the students is an interpolation of words (evidently fabricated to serve a *purpose*) which we *nowhere* used; and that relating to the University, which is dragged in and confounded with the Medical College,* is a perversion of words and meaning. We repelled the idea by rebuking the author for sending his production abroad, "bearing the name and thus *seemingly* the sanction of the Nashville University"—in precisely these words. And yet in the anxiety to strap every thing in, and spread the odium over as large a surface as possible, we are represented as "declaring" that it *is* sanctioned by the University; thus giving credence abroad to the idea as if based upon our "declaring." The editor in effect publishes to his subscribers, UPON OUR AUTHORITY, that it *has* the sanction of the University. He not only intimates the thing by putting the name of the University on the title page, but would drag in the testimony of a medical journal published on the spot, to prove it. He then presents, as the deliberate *resolves* of the "Medical Society of the University," a vindication of the character of the production; hoping no doubt the whole "University," etc., will now feel forced to take up for it, and endorse the justification that follows:—

Resolution 1st says, "That the Hudibrastic representation of Quackery, in and out of the Profession, has ever been considered legitimate game for amusement, and has only been opposed by abettors of empiricism." This general proposition implies that the production in question is of a class always countenanced by the Profession, &c.; and that, since what is true of a class is true of the individuals composing it, this particular production commends itself to such countenance, receives it, and is "only opposed by abettors of empiricism." The offence consists in:—First, representing it as a mere sally of wit and genius, "legitimate," and of course, worthy of repetition and imitation; which is an offence, first, to truth, and second, to morals. Second, in representing such effusions as common to, and uniformly sanctioned by, the Medical profession; which is not simply untrue, but slanderous to the entire profession, while at the same time an exclusive, and therefore unmerited, compliment to empiricism. Third, in representing it as having the sanction of the profession in this city and only the disapprobation of "abettors" &c.,—a special offence of the same

*It may not be generally known that the Medical department is virtually disconnected from the University, the Trustees of the University having given up the control of the Medical School in favor of its professors.

nature as the last; for it was received with universal disapprobation and disgust (outside of the Medical College) both "in and out of the profession." How far sanctioned by the College, we know not; the justification *purports* to come from its Society, which is composed of students and professors. But as to the individuals, we are in the dark, and wait for more light. We hope, however, that no "abettor of empiricism" may have cause to represent to the community that a thing of the kind is sanctioned and justified by the Teachers of the Medical Department of our University; and that if any have lent, or been wiled into the *appearance* of such, they may speedily come out openly and wash their hands of the "UNCLEAN THING."

Having thus represented this "amusing Epic," this "Iudibrastic representation," as sanctioned by the University and countenanced by the profession, it is next held up to be *every way worthy* of such sanction and countenance.

Resolution 2d, boldly asserts "That in the satirical address" &c., "there was no indecency perpetrated—no immorality was committed—and that the assertion 'that it teaches obscenity, venality and licentiousness' is a *gross perversion of truth*." Mark the wording: the author was on slippery ground! But the idea conveyed is clearly, that it is not obscene, contains no lewd images, has no immoral influence. Mark also the *pretended* quotation. To say we said "that it *teaches*" &c., is certainly a "perversion"—not having used the expression, nor any where said what it did "teach"—(a word brought in likely to hang a quibble on.) We spoke only of its "tendency", its "influence", in awakening sensual instincts, associations, desires. But if to inculcate—on the authority of Aristotle and others since his time, and the tendency of modern science—the notion, that nervous affections of females are all the result of *unsatisfied desire*, does not "teach obscenity, venality and licentiousness" what does? And if anything be taught by representations addressed to the imagination (often the most effectual mode) then, to our view the address "teaches" all that is here disavowed.

But, being on this point flatly brow-beaten into the *proof*, we furnish it, by some extracts from the authors production, which, as we would not defile our Journal with them, we exhibit on a separate sheet, and beg the reader to burn as soon as read.—And this is what young Medical Students are *taught* to regard, and to justify, as "pleasant satire," an "amusing epic," an ebullition of wit and genius!

Resolution 3, considers the rebuke "uncalled for, and originating in jealous and hostile feelings to the University."—It is enough that others thought it was called for. But for it, perhaps the Professor's "volume two," had been "called for," out of respect, or a 'second edition' of the first 'enlarged and *improved*,' more spicy and "*pleasant*" etc., with all the sequella.

The charge of "Jealousy" is too silly for serious notice. It is the common battle-cry of Quackery, whether in high or low position. It might pass with some, if based on a shadow of foundation, but in this connection cannot work the desired prejudice. Jealous of the "University"! Do we covet the goods and chattles of the University, or of its Medical Department, that we may carry them about (Professors and all) in our

pocket! Is the "University" a RIVAL of ours, that in our "malignity" we want to strike it out of existence! Does it stand in the way of our *business*, interests or ambition? Have we not, so far at least as its medical branch is concerned, lent all the poor energy we possessed to further its objects, and to the last, regardless of calumny, sought to repel indignity and defend its honor? And who is it may desecrate the temple hallowed to Science, and then claim immunity because serving at its altar!

But we are consuming too much space in dwelling upon these paltry shifts and crinations, and can only touch briefly on what follows:

Resolution 4, avers that the Address is only intended for use "as a weapon of warfare against Quacks and their allies." We thought Disease and Death were the foes that Students are armed to contend with; but if a "warfare" must be carried on with Quacks, &c., might not a better sort of weapon be devised, than such that are formidable only in the hands of the enemy?—A "weapon" for "Quacks and their allies," it should have said,—and these Resolutions for the *Shield*! For if such Addresses from medical teachers were sanctioned, as these resolutions proclaim them to be, the proudest profession on earth could be crushed in a day. But we rejoice that THE PROFESSION here have by acclamation (of which our voice was but a faint reflex) condemned and broken *this* "weapon" and thus at once disarmed empiricism of its use.

Resolution 5, appeals to the "citizens of Nashville" in behalf of the Professors and Students.—If the Professors were not "moral" the Address might have been no "stigma to the College," and in proportion to their high morality is the stigma darkened. That the conduct of the Students is commendable, earns a better reward for them than to be saddled with the blame and harnessed into the defence of what its author dare not justify OPENLY.

Resolution 6, "believes" we have "treacherously sold" ourself "to a certain clique in this city, (that through jealousy has ever opposed the interest of this school)" and charges us with ingratitude to the "Western Editor" for "many special acts of kindness conferred."—Who that "certain clique" is, does not appear. It cannot mean our Associates in the Journal, for it is well known that, not only in private circles have they lent their influence in favor of this very school, but that they did more to give it favorable publicity and advance its interest, at the very time it most needed help, than all the professors in the College put together; as may be seen from files of the Nashville Banner, Union, Whig, Gazette, Tennessee Organ, Tennessee Baptist, Western Recorder, etc., issued about the time the institution was entering upon its first session.—If it refers to the medical profession of the city in general—towards whom the "Western Editor" seems to have taken a particular spite for not approving his course, hurling through his journal, defiance at their opinion and appealing to his "pure minded" subscribers off "in the country," (where less known) who he says "like" his "ways" and whom (getting dissatisfied probably) he tells that the "end will show," to use his own form of quotation, "that

"All our failings lean to Virtue's side,"—

we have only to say, that, in our opinion, the resolution is mistaken in its accusation. We have seen and heard of the origin of Medical Schools

in other places than this, and never knew of less opposition to, or more sympathy for, an institution among the profession than here. And yet to read in the Nashville Medical Journal and some Addresses published since the institution has got under headway, of "opposition," of "enemies," and of Napoleon exploits, one would imagine that the school had been obliged

"To wade through slaughter to a throne."

If the course of the College, by whomsoever led, has been such as to alienate the sympathies hitherto exerted in its favor, it is the fault of the institution, not of the profession.

But of us it is said we "sold" ourself "treacherously", are "ungrateful" &c. Is it presumed that the "Western Editor" had a *claim* on us, upon the grounds, (and the only ones imaginable) that we attended our last course of medical lectures at, and received our honors in medicine from the College in which he is a professor, and wrote some for his journal about the same time? Does he *really* suppose the whole College is his, and all who ever patronized it! In its infancy, we indeed, lent the School all the aid we could, in time, money and influence, and exerted our efforts to make its existence and advantages known as widely as possible, but we did not dream this was to put us under obligation to any professor proving recreant to the great objects of such an institution; much less that it could possibly be used as a *ground* for twitting us of "ingratitude"—We had greatly preferred the editor had come out under his own name with this issue!—As to the "many special acts of kindness" of which we are "reminded," we would like him or any body else to point to a solitary instance, for we confess we cannot think of one. We certainly owe him or his no "debts"—in money or "gratitude,"—and NEVER DID, to the *best* of our recollection. Can as much be said on the other side?

Resolution 7, charges and "publishes to the Profession," as a startling offence, that the notice which has elicited such a series of *Resolves*, is the first that "they" (our associates) "have ever given" of the "flourishing" Medical College "while nearly every other Medical Journal has marked and published its unprecedented success." The author (or authors?) seems to have been conversant with every thing appearing in our Journal from its origin, and equally so with "every other medical journal." Perhaps if he had "marked" the Nashville Journal he might have found puffs enough to answer for both—and some that might deter less *experienced* hands. With an organ of its own so able to blow its trumpet, we don't think it 'fair' to "publish" us "to the Profession" for sparing our lungs! But we are here trespassing on a point more especially directed to our Associates. We hope the profession will excuse their dereliction while the College, with all its "flourish", allows itself to appear trailing in the wake of one who "prints" an outrage upon morals and decency, and "publishes" a series of paltry subterfuges in justification! But we also hope it will now cut loose and show itself worthy of the tardy commendation.

As to the personal scurilities sent forth, under cover, we let them "go home to roost." They cannot reach us;—and they'll settle to their *resting-place* without help, though *crouched* in the ambush of a "Society."

B. W.

GALVANIC ABDOMINAL SUPPORTER.—We have received from Seymour & Co., this beautiful instrument admirably adapted, as we think, to a large and exceedingly annoyingly class of diseases hitherto with difficulty treated by electro-galvanism. The peculiar structure of the instrument renders it desirable, in many instances, as a mechanical supporter—being in this respect alone equal, perhaps superior to anything we have seen. But when to this is added the beneficial results of Galvanism, it is unquestionably superior to all others.

W. P. J.

DENTAL ESTABLISHMENTS.—Our Southwestern dentists will be glad to learn, that besides Dr. Brown's large Furnishing Depot, Messrs. S. Wardle & Co., so favorably known in Philadelphia, have recently opened an extensive dental establishment in Cincinnati, where they manufacture artificial teeth and execute block work for the profession. We are much pleased with the form, coloring and texture of the teeth of their make; the gum teeth are exceedingly beautiful and natural, as also the block work that we have examined. With two such splendid establishments in our neighboring city, the profession in the Mississippi Valley need not travel across the mountains for an "out fit."

In our own city, Messrs. Stretch & Orr, wholesale and retail druggists, keep on hand a large stock of Jones, White & Co.'s teeth, and H. G. Scovel on the Square, has a good supply of Dr. Alcock's make. The prepared "Sponge Gold" for filling teeth, which we believe has not yet been introduced in the city, can be had by mail from either of the above establishments.

B. W.

The Microscopist, or a complete Manual on the use of the Microscope, for Physicians, Students and all lovers of Natural Science. Second Edition. By JOSEPH H. WYTHES. Philadelphia: LINDSAY & BLAKISTON. 1853.

The uses and the revelations of the Microscope are no less wonderful than those of the Telescope. Indeed no comparison should be instituted between them, for, without any disparagement to either, they are as widely separated as the extremes of the universe. The Microscope opens up the invisible world of matter, and shows us objects of which we could otherwise form no conception, making in fact an immensity of a grain of sand, or a world of living beings in a drop of fluid; whilst the Telescope brings distant worlds into view, and reveals to us systems, revolving like our system around their central suns, separating those bright spots, called nebulae, so long the puzzle of astronomers, and resolving them into

myriads of stars, held together by the laws of gravitation, just as the worlds of our system are bound. With the one, Physiologists ascertain the character and nature of the simplest elementary organic form to be a cell, within which is discovered a *nucleus* containing a granular body. This primary form is assumed when the proximate principles of the organic matter pass into that of an organized structure. They have gone further, and discovered that the nucleus is the cell-germ, while the granular body, termed nucleolus, by a constant aggregation of fresh particles forms nuclei, within each of which a new nucleolus can still be seen. The forms of these cells have also been ascertained, varying according to the organic structure in which it is found, being in some spheroidal, in others cubical, prismatic, polygonal or cylindrical. With the other, astronomers have counted the members belonging to our solar system, and watched the influence which they exert upon each other. They have gone beyond, and established the fact that there are countless systems of worlds far removed beyond our own, each obedient to the same laws, and performing the same revolutions. They perceive a forward motion through space in all these systems, and advance the idea of a grand central sun, to which our telescopes have not yet reached, around which the universe of Jehovah revolves.

Thus the Telescope and Microscope are revealing the immensity of the works of creation. By their aid truly may we see—

“The mighty chain of beings, lessening down
From infinite perfection, to the brink
Of dreary nothing.”

The use of the Microscope can be traced back to a date anterior to the beginning of the christian era, but before the 17th century nothing remarkable was discovered with it, nor had it been improved to any great degree. During that century, Malpighi employed it for illustrating the doctrine of the circulation of the blood, advanced by Harvey, by showing it actually coursing through the veins of the frog's foot. His co-laborers in this same field of inquiry were Borelli and Lewenhoeck. In the 18th century we see Swammerdam, and Lyonet, and Spallanzani, and Ellis, and Lieberkuhn, and Fontana, and Hewson, and Mouro, actuated by the same investigating spirit. And in the present, 19th century, in which so much has been done, we read the disclosures made by Ehrenberg, Muller, Schwann, Schulz, Wagner, Weber, Bowman, Owen, Cooper, Bush, Quekett, Bowerbank, among the English, of Selligues, Chevalier Bayard, Doune, Dujardin, Manel, Flourens, Laurent, and Robin, among the French, and of Baily, Leidy, Goodby, Goddard and Wythes, in our own country.

1854.—Presents some excellent remarks and a variety of cases of Heart Affections, in a style fluent, but unambitious and to the point.]

A Treatise on Diseases of the Eye. By W. Lawrence, F. R. S., etc. Philadelphia: Blanchard & Lea. [From the Publishers through W. T. Berry & Co.—On file for review.]

On the Etiology, Pathology and Treatment of Fibro-Bronchitis and Rheumatic Pneumonia. By Thomas H. Buckler, M. D. Philadelphia: Blanchard and Lea. [From the Publishers through W. T. Berry & Co.]

The Half-Yearly Abstract of the Medical Sciences. Edited by W. H. Ranking, M. D., and C. B. Radcliffe, M. D.,—No. 18; July to December, 1853. Philadelphia: Lindsay and Blakiston.

[We hail this work with renewed pleasure—crowded as it is with judicious selections from the very best European Medical Journals,—and wonder that any physician should consent to be without it.]

Diseases of the Uterine System as a Cause of Physical Degeneracy, with General Views on Prevention and Cure. By C. D. Griswold, M. D., of New York.

[This is a small treatise for popular reading, by the Editor of the *Esculapian*, urging the attention of the community to the subject of which it treats.]

The American Medical Monthly. Conducted by the Faculty of the New York Medical College. Edward H. Parker, M. D., Editor. Vol. 1, No. 1, Jan. 1854.—New York: George P. Putnam & Co.

[It is finely gotten up, filled with articles of merit; and if not lent to subserve the interests of the Institution, under whose control it is, cannot fail with so able a corps of conductors, to prove a valuable addition to our periodical literature. Terms \$3 a year.]

The London Lancet. A Journal of Medical, Surgical and Chemical Science and Practice; Criticism, Literature and News. Edited by Thos. Wakley, M. P., Editor; J. H. Bennet, M. D., T. Wakley, Jr., Sub-Editors. New York: Stringer & Townsend.

[This No. (Jan. 1854) is the first of the New Volume, affording a good starting point for those of our South Western Physicians who are not subscribers, to commence taking the best Foreign Medical Monthly that is published in the English language. Two volumes are published annually: Terms \$5 a year.]

A Practical Treatise on Inflammation of the Uterus, &c. By James Henry Bennet, M. D., etc. Fourth American from the third revised London edition. Philadelphia: Blanchard and Lea. 1853. [From the Publishers through W. T. Berry & Co.]

Elementary Chemistry, Theoretical and Practical. By George Fownes, F. R. S. Edited by Robert Bridges, M. D. Philadelphia: Blanchard and Lea. 1853. [From the Publishers through W. T. Berry & Co.]

Elements of Chemistry. By M. V. Regnault—translated by J. F. Betton, and Edited with notes by James C. Booth and William L. Faber. Se-

cond Edition, in two volumes. Philadelphia: Clark & Hesser. 1853.
 [From the Publishers—received too late for review in this number.
 Will be noticed at length in the next.]

TO CORRESPONDENTS AND READERS.—Correspondents are respectfully requested to forward their communications by the first of the month preceding the issue of the number for which they are intended.

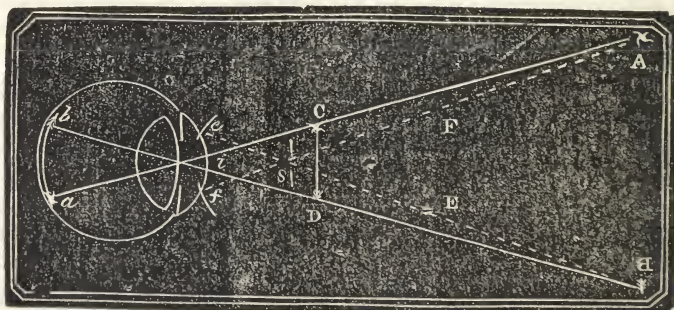
As we have no special agents to whom we send the work, subscribers will be furnished direct by mail. Persons acting as agents and forwarding remittances, will be allowed a fair per centage. Funds current throughout the State from which they are sent are taken at par.

THE CASH PRINCIPLE will be adhered to in all cases. It is the easiest and best for all parties. Please therefore remember to send the money when ordering the work.

RE THIS NO. is sent to several of our old subscribers who have not yet remitted for the New Volume, hoping they will allow us to place their names on our new list where ALL that are entered have the word "PAID" prefixed. If any should not wish to continue the work, please hand this and the preceding No. to some friend who may.

Our friends of the secular press doing us the favor to bring the Journal before the attention of their readers, through their papers, will, if they desire, be furnished regularly with the work without taxing them to exchange—in which case, however, copies of such papers should be mailed to the address of the Journal, that we may know to whom to send it hereafter.

RE FIG. 6, page 103, having been reversed in its connection with the text, it is reinserted here to avoid any confusion to the reader:



THE
SOUTHERN JOURNAL
OF THE
MEDICAL AND PHYSICAL SCIENCES.
MAY, 1854.

ORIGINAL ARTICLES.

ART. XI.—TWELVE MONTHS' PRACTICE IN THE CHEROKEE NATION,
WEST.

BY J. P. EVANS, M. D. LATE OF TAZEWELL, TENNESSEE.

[Continued from page 21.]

TO F. A. RAMSAY, M. D.:

Dear Sir:—On glancing over the first number of my Notes, in the Southern Journal of the Medical and Physical Sciences, for January, 1854, I perceived that a few words of explanation were necessary to the elucidation of the idea intended to be conveyed in the preliminary remarks.

By writing out cases, as they successively occurred, representing numerous diseases, a writer is not apt to manifest by tedious disquisitions, and fierce assaults on the opinions of others, a degree of dogmatic enthusiasm calculated to impair the confidence of readers in the authenticity of his facts.

In this connection I will remark, that I am confident a great majority of the members of the medical profession, in reading the productions of their brethren, prefer *facts in detail* to *opinions*. For instance, an assertion on my part that I had successfully combated a certain epidemic with a given substance, or by inducing a particular therapeutical operation, emesis, catharsis, diaphoresis, narcosis, or some other, would be unsatisfactory to others. They would desire not only the premises from which I deduced my conclusion, but the sources from whence those premises were drawn; so that their own judgments, thus enlightened, might decide upon their claims to le-

gitimacy. They would wish to learn my combinations, regimen, and moral agencies, (if any,) in order to form their own sentiments in regard to the relative value of each remedy.

When a medical writer is known to be a man of strict honor and probity, his *facts* are valuable as pure *particles* of knowledge; and when to this character is superadded a well earned reputation for skill and ability, his *opinions* are entitled (in the language of diplomacy) to "distinguished consideration." But notwithstanding this, men who have minds capable of grappling successfully with philosophical subjects, are desirous of making their own deductions, and will not *fully* adopt those of others, until they have examined them analytically and synthetically: to do this satisfactorily to themselves, they must have well authenticated facts, and the privilege of choosing and arranging them, as a chemist would select and dispose pure particles of elementary substances, in order to form binary, tertiary, or other chemical compounds.

CASE 11.—*Spasmodic Diarrhæa*.—June 19. Wm. Foreman, (in town,) aged 17, who had been riding the greater part of the day, and late in the afternoon had indulged in the amusement of leaping or jumping, until he was excessively heated, was taken suddenly, after supper, with excessive purging, attended with severe pains in the stomach and bowels. Before I was called he had taken about a drachm of laudanum at two doses, with a decoction of fuligo (soot.)

Found him without febrile excitement, pulse nearly natural, perhaps slightly depressed. As the above course had been practised almost up to the time of my arrival, I thought it probable the laudanum had not yet exerted its full effect, and only gave 1-6 gr. S. Morphine. In half an hour, owing to a return of pain, (which had previously returned, with purging, every five minutes,) gave $\frac{1}{4}$ gr. more. Left directions to repeat the Morphine in one hour, if pain returned, and also, to apply hot fomentations. No repetition of the medicine or fomentations were necessary. The next day he was able to walk about town.

What some would term "a rational inference," would be—that the *purging*, in this case, (the young man had eaten a

heartly supper,) was an "effort of nature," to relieve the bowels of offensive ingesta, and was the principal source of relief. It may be that such was the fact; but I would respectfully suggest, that what *was* offensive then, would not have been so at an other time; for nothing unusual was eaten; therefore, a morbid sensibility of parts must have existed previous to eating, induced, probably by a long ride under a hot summer's sun, and excessive muscular exertion in jumping. If this was the true state of the case, the remedies given, not only allayed pain, but also the morbid condition which rendered the usual articles of diet offensive; and the *purging* instead of being an effort of nature, was a morbid manifestation. Perhaps some may consider all morbid manifestations to be efforts of nature. The question would then resolve itself into one of mere verbal definition, and I shall not argue it; but will content myself with expressing a doubt as to the propriety of practitioners endeavoring to imitate all such efforts.

CASE 12.—*Aphthæ*.—June 20th. Son of T. B. Wolf, aged 3. Aphthous condition of the mouth, (and tongue,) following convalescence from measles. Alum had been used; but the process of *rubbing* the parts with a towel, or other similar substance, had been practised regularly, three times a day. R. A small quantity of Borate of Soda, pulverized, and mixed intimately with loaf sugar, to be placed on the tongue 3 or 4 times a day; and all rubbing to be discontinued. In a few days the aphthæ disappeared.

CASE 13.—*Secondary Syphilis*.—June 21st. Mr. A. aged 25. Considerable enlargement of the left inguinal gland, (bubo;) excoriated mouth and fauces, but no ulceration; top of forehead, (and parts extending a little way into the hair,) adorned with *fashionable* ringworm eruptions, which he seemed to delight in exhibiting, by wearing his silk beaver on the back of his head. General feeling of *malaise*. Some months previously had, (as he supposed,) Gonorrhea, for which he took medicine—principally Balsam Copaiba. After the lapse of some weeks a small ulcer formed on the penis, but soon disappeared. For the coronal adornment, he had used, (apparently with good effect,) a solution of Sulph. Cupri.

R. Massæ ex Hydrag.

Iodide of Potassium, aa 2 grs., three times a day. A small quantity of Unguent. Hydrarg. fort. to be rubbed on the bubo every night. To avoid alcoholic beverages, and live principally on a milk and bread diet.

June 28th—Excoriated condition of mouth and fauces had disappeared, as also general *malaise*. A small red mark existed on the edge of the gums, with a slight mercurial odor. Bubo has slightly diminished in size.

R. Iodide of Potassium alone, 2 grs. three times a day. I intended recuring to the Blue Mass in a few days, in accordance with the plan of Mr. Hunt, set forth in the London Lancet;* but the young gentleman, who affected quite a debonair deportment, saw fit to "leave for parts unknown," with more than fifteen hundred dollars in his pocket without calling to learn anything in regard to further treatment or a fee. He will doubtless remain *scabby* all his life.

CASE 14.—*Intermittent Fever*.—June 21st. Dr. J. H. Ross, merchant, aged 25. Second paroxysm. Febrile excitement a little on the decline; slightly costive; pain in the head and lumbar region; thirst.

R. Blue Mass, 4 grs.

S. Morphine 1-6 gr. which seemed to establish the sweating stage. Directed 20 grs. S. Quinine, in six doses, to be taken by 10 o'clock, A. M., the next day. Jugulated.

CASE 15.—*Rubeola*.—June 24th. Son of Watie Robinson, aged 7. Eruption plentiful; febrile excitement very high; costive.

R. Hydr. Chlor. mit., 8 grs.—25th. Bowels had acted well, but not excessively; fever on the decline. Cough troublesome.

R. S. Morphine, 1-16 gr. three times a day. This was taken for two days, apparently with good effect. Convalescence rapid.

This disease had been prevailing in the neighborhood some months before my arrival; and I was informed by numerous individuals, that diarrhæa almost invariably occurred,

* See Charleston Medical Jour. and Rev. vol. VII. No. 1. March 1852.

particularly in the desquamating stage, with rapid prostration. The last prescription was to guard against this, as well as to moderate pulmonary irritation.

CASE 16.—*Rubeola*.—June 24th. Wm. Riley, aged 18. Fourth day from attack. Hereditarily predisposed to Phthisis Pulmonalis. Febrile excitement, hoarseness, cough and head-ache; pulse small and frequent; eruption partial; bowels soluble.

℞. S. Morphine 1-6 gr. every three hours, with warm diluents.

25th. Eruption full; fever high; but head-ache less than yesterday.

℞. Hydr. Chlor. mit., 15 grs.

This acted favorably. A few small doses of S. Morphine were taken occasionally, to moderate cough, and guard against diarrhæa. Convalesced firmly.

CASE 17.—*Uterine hemorrhage*.—June 25th. Mrs. R., aged about 30; the mother of two children; originally from the State of Delaware; tenderly reared; is very delicate, and apparently of leuco-phlegmatic temperament; suffers frequently with nervous depression, sick head-ache, lassitude, languor, and deficient appetite. (Distance 5 miles)

Arrived at 12 o'clock at night, and found the patient very weak and faint, face exsanguious; pulse small, and 95 to the minute. Early in the night had been seized with severe pains in the hypogastrium, which as she supposed, were parturient: She believed she was in the latter part of the third month of gestation. Flooding commenced in a very short time after the pains set in, and had continued. On introducing the finger into the vagina, I found it almost wholly occupied with coagula, and a substance which I judged to be secundines—partially liberated from the Os Uteri. By introducing two fingers, I speedily succeeded, by traction at the time of pain, in relieving the mouth of the womb. The expulsive act was feeble, but sufficient contraction took place to diminish the hemorrhage in a notable degree; and by grasping the uterus repeatedly at different points, (Denman's frictions,) and making pressure immediately above the Symphysis pubis, it

underwent a further diminution; but it was still too considerable to be overlooked in the patient's prostrated condition. Applied a bandage and compress.

R. Aet. Plumb. 2 grs.

Opium, 1 gr., every three hours.

26th Morning. Patient slept some; hemorrhage slight. Directed a dose of the above, every four or five hours—to be omitted if hemorrhage entirely ceased. Should the bowels not act in 24 hours, a dose of Castor Oil.

27th Afternoon. Found the patient with a severe headache, which she attributed to the opium, as it generally had that effect on her. Still a slight hemorrhage. No action on the bowels.

R. Acet. Plumb. 2 grs.,

Opium, 1-8 gr., every three or four hours.

28th Afternoon. The patient is comfortable, and cheerful; Castor Oil had acted well; slight after-pains. No hemorrhage, except a small coagulum, discharged at the time of pain.

R. Suspended previous prescription, and directed 15 drops of the Tincture of Muriated Iron, three times a day.

29th. After-pains troublesome.

R. Pulv. Camphor, 5 grs.

Tinc. Opium, 5 or 10 drops, every three or four hours, as long as the pains may demand. Continue Iron.

July 1st. Evening. Appetite still deficient. A feeling of languor. Late in the afternoon of yesterday and to-day, she was conscious of slight chilly sensations, followed by restlessness, increase of thirst, and throbbing of the temples, for two or three hours.

R. S. Quinine, 20 grs., in 8 doses. One to be taken every 3 hours, commencing immediately. Omit Tinc. Iron.

July 6th. Found the patient up in a rocking chair; but yet quite feeble. Appetite. Had felt better ever since the subsidence of quinism. Directed a weak solution of S. Quinine, (with lemon acid,) and Tincture of Ginger, 3 times a day. Up to this period the patient's diet had been oat meal gruel; a more generous diet was now recommended. Convalesced steadily.

On my first visit, immediately after removing the coagula and other substances from the vagina, and about her person, and placing them in a vessel, a careful search was made; but no fœtus could be found. What I had supposed to be a small placenta, I perceived to be of an entirely different structure from that viscus: it was saccular—having one cavity—and smooth on its surface; about two lines in thickness, and easily torn, and resembled in outline the human urinary bladder.

The case was set down in the table for the month, as one of *hydatid*; but I am not fully confident of the correctness of that designation. The condition of the patient demanded the closest attention for an hour or more, which prevented me making a minute examination; and when free from bed-side duties, I found the substances had been removed by a servant.

After the lapse of 8 or 10 days more, the lady was put upon the use of the Tincture of Iodine, three times a day—first 5 drops, and gradually increased to ten—which was continued for about three weeks.

I was led to this course from the result of a case in East Tennessee, (1842-3,) to which Dr. M. Carriger and myself attended.

A widow aged 40, had two enormous discharges of small hydatids, in clusters, a few weeks intervening, attended with alarming hemorrhage. A short time after the second attack she commenced the use of the Tincture of Iodine. At the end of an interval of the same period as the first, a third evacuation of hydatids occurred, but in diminished quantity, as was also the accompanying and succeeding hemorrhage. And thus, a succession of discharges, always in diminished quantity, took place, until there had been in all some five or six, when they ceased, and the patient gradually regained her health, and was still living in October 1853.

Feb. 1854. Mrs. R. has had no return of a similar or analagous affection; but in her case the influence of the Iodine, in preventing a recurrence, is doubtful. Her case was ambiguous, and the medicine was not taken a sufficient

length of time, perhaps, to effect a change in the morbid action of the parts concerned. In the case of the widow, the Iodine was taken regularly for months, except an interval of a day or two occasionally, until its disagreeable effects somewhat subsided—head-ache and a feeling of fullness of the head.

CASE 18.—*Intermittent Asthma*.—June 46th. B. S. S. Boynton, aged 23; merchant's clerk. Is subject (and has been for a number of years) to severe fits of asthma. During the present illness, the disease has subsided and returned regularly, at tertian periods, to the third paroxysm. At first he made use of various remedies to which he was accustomed, and seemed to obtain partial relief. In a few hours the disease intermitted, and he supposed he would be exempt (as usual) from another attack for two or three weeks, or perhaps a month; but forty-eight hours from the first invasion, he "relapsed," as he termed it; "again got well, and relapsed the second time at the same interval."

R. Myrrh, 30 grs.

S. Quinine, 14 grs., divided into six powders. The whole to be taken during the latter half of the interval. No paroxysm succeeded, or any disagreeable symptom. He is, up to the present time, subject to attacks of asthma in its usual form, as previously.

Apropos. In the summer of 1851, I was called early in the night to a daughter of C. M. De Lano, aged 2 or 3 years. Was informed that she had had a severe attack of *Croup* a year before, which was obstinate and tedious in its course; that early in the night previous to the present, a burning fever arose, attended with cough, hoarseness, and difficult breathing. That domestic remedies were resorted to, and during the latter part of the night the fever and dyspnœ gradually subsided; and during the day, until twilight, she had appeared quite well, when another paroxysm set in.

Found her with hot dry skin, and pulse rapid; hoarseness; dry sonorous cough; head thrown back; breathing with difficulty, as if respiring through a metallic tube. An emetic was administered, which appeared to give partial relief; and this

was followed by a calomel cathartic, with nauseants occasionally. Shortly after 12 o'clock at night the disease began to abate, and the child slept calmly until late in the morning. Played about the house during the day, and at night was again attacked, seemingly with as much severity as at any previous paroxysm. The periodicity now struck me as a feature of which I could take advantage. The next morning the usual intermission was present, and a full antiperiodic quantity of S. Quinine was given during the day. The disease did not reappear, and up to the present time the child has remained exempt from it.

CASE 19.*—*Sick Head-ache*.—June 9th. Mrs. C. M. De Lano, aged 25. Leuco-phlegmatic temperament. Subject to attacks of intense head-ache, generally attended with nausea. At this time she has acid eructations; pulse slow, small, and deficient in vigor.

R. Calcined Magnesia, 3ss.,
Acet. Morphine, $\frac{1}{4}$ gr.,

Two doses were taken an hour apart, and the head-ache and nausea wholly subsided.

This is a painful affection, and troublesome to the physician, as he cannot always give temporary relief in a short period of time.

Some years ago a friend of sedentary habits applied to me with sick head-ache. On enquiry, was somewhat surprised to learn that on having made efforts to vomit, he found that the fluid ejected was alkaliescent instead of acidulous. A few grains of Tartaric Acid dissolved in water gave perfect relief in less than three minutes. In subsequent attacks the remedy failed. At such times a cathartic containing calomel generally gave relief.

CASE 20.—*Sick Head-ache*.—June 26. Mrs. Price, aged 40. Head-ache with nausea; very slight febrile movement.

R. Acetate of Morphine, $\frac{1}{4}$ gr.

Relief followed in less than half an hour. When I say a case is *relieved*, I do not mean for a few hours, or a day; but for the usual period between attacks,—generally some weeks.

*This case was unintentionally omitted in the first number.

In a great majority of cases of this affection which have fallen under my observation, there was evidently *deficient* innervation—depressed pulse, with cold hands and feet. I have never seen much benefit from the use of mild cathartics, or such as acted only as evacuants; and the benefit from a dose of calomel seemed to depend on its *revulsive* action; and in regard to preventives, or such remedies as were desired to remove the tendency to the disease, I have never known gentle mercurials and aperients succeed. I yet have to see a course instituted with remedies which act primarily on the nervous system.

Many cases, I have no doubt are connected with indigestion; and yet it will often be found that the attack had occurred when no deviation from the usual mode of living, (in regard to diet) had taken place. From this is to be inferred that the indigestion was the consequence, (and also the headache,) of a derangement of one of the great vital systems, of the organization. To this derangement, it strikes me the efforts of the physician should be principally directed, after the use of palliatives.

CASE 21.—*Remittent Fever*.—June 26th. A little son of Thomas Rider, aged $2\frac{1}{2}$ years. Had been sick five or six days. Morning remissions, and renewal of paroxysms at or near 12 o'clock, M. The case was complicated with harassing dry cough, and severe diarrhæa. Another physician had paid a transient visit, and prescribed Dover's powder and S. Quinine, separately. This treatment had been followed up for two days: the diarrhæa had somewhat improved, but the remittent fever had continued. On examining (weighing) a dose of the Quinine, I found it to be one grain.

R. S. Quinine, 12 grs. in 6 doses, to be taken by 10 o'clock, A. M., the next day, commencing early in the night. Remained with the patient (12 miles.) During the night diaphoreses took place, (for the first time,) with a softening and diminution of the frequency of the pulse, and a gradual subsidence of febrile heat. In the morning there was a perfect intermission. The paroxysm was not renewed, and cough, with a slight remains of diarrhæa, speedily disappeared. Rapid convalescence.

Should it be asked—what led me to renew the exhibition of Quinine in large doses? I answer—the predominating feature of the case was that of *periodic fever*; and I had practised in the same region a number of years ago, (from 1834 to 1841,) as well as the summer immediately preceding; together with the *fact*, (although there may not be written evidence of it,) that such a plan is *successfully* practised by a large majority of the physicians of the South and South-west.

CASE 22.—*Remittent Fever*.—June 26th. A Negro male child, at the same place as the above, aged $1\frac{1}{2}$, and similarly affected; (viz:) intense febrile excitement during the afternoon and greater part of the night; morning remissions; diarrhæa, and frequent dry, hacking cough.

R. A dose of Dover's powder, and $1\frac{1}{2}$ gr., S. Quinine, until six doses are taken during the night and forenoon. The medicine was placed in the hands of the mother. Either the medicine was not all taken, was not in sufficient quantity, was purged off, or the case was not amenable to its action at that time; for, (as I was afterwards informed,) the paroxysm was renewed at the usual period. I had left an hour or two before.

July 2nd. Again sent for. Gave S. Quinine in 2 gr. doses until six were taken, ending at 10 o'clock, A. M., the day, and no more fever appeared. Dover's powder had occasionally been given to restrain diarrhæa. Neither this nor the preceding case relapsed.

CASE 23.—*Intermittent Fever*.—June 27th. Child of The Cloud; (not of the mist;) female, aged 18 months. Residing (and had been all its life) on the brink of a low alluvial bottom, bordering on Illinois River. Has often been afflicted with ague and its kindred affections. Is very small for one of her age; being constantly immersed in an atmosphere loaded with malaria, she could not be otherwise, although there were not always present *active* manifestations of its influence. Present illness, (tertian ague,) of two weeks standing.

R. S. Quinine, 10 grs., in 6 doses. To be given during the latter part of the intermission. Jugulated.

In a short time after this, the child—a tiny little thing—full-blooded Indian—was taken into the family with whom I boarded, and was pale and bloated; but she gradually regained her health. During the Summer and Fall she had two or three slight attacks—a light febrile movement—which disappeared each time, on the administration of a few grains of calomel. She now, (Feb., 1854,) seems to enjoy good health, but grows very slowly.

CASE 24. *Gastric Remittent Fever. June 28th.* Mrs. Henry Nave, aged 50 years, or more; the mother of a large family; small and lean. Had been sick several days with Remittent Fever, attended with excessive nausea, vomiting, and diarrhæa. Countenance sunken; pulse small and frequent; very much prostrated.

R. Acetate of Morphine, 1-6 gr., every hour, until 3 doses were taken, (which allayed gastric and intestinal irritation,) followed by S. Quinine, 25 grs., in six doses, given during the remission, were all the medicines that were given. Jugulated. No relapse.

Feb., 1854.—The lady is in good health, and has been ever since.

CASE 25. *Ophthalmia, acute. June 28th.* Anderson Bengé, aged 30 years. Had been afflicted with severe Ophthalmia for a week, complicated with Intermittent Fever. According to his account the ophthalmic invasion was sudden, and simultaneous with that of the intermittent. Enjoys comparative ease during the stage of apyrexia, but not full exemption. Visited him (five miles) during a paroxysm. Febrile reaction palpable, though moderate; eyes exceedingly painful, and exquisitely sensible to light; eye-lids slightly swollen; a deep and uniform redness of the conjunctiva; no rheumatic circle; no elevation of the sclerotica; very little purulency, but copious lachrymation. He had taken no medicine.

R. Calomel, 25 grs., to be followed by castor oil, should it not operate in six or eight hours. To keep compresses, wet in a solution of acetate of lead, to the eyes, confined with a black bandage. After the action of the calomel, to take 20 grs. of S. Quinine, in 4 doses, so as to intercept the chill.

(The pulse was small and frequent, as is generally the case in Intermittents.)

July 1st—The Calomel had acted copiously, without adding any thing to the partial relief afforded by the intermissions. The Intermittent was jugulated by the Quinine; and the ophthalmia appeared to be benefited. Lachrymation, intolerance of light, and constant burning pain, less than had been the case during previous intermissions. The profuse watery discharge had given place to a semi-purulent excretion. The redness had slightly faded.

R. A strong solution of the sulphate of zinc, as a collyrium, which produced excessive smarting for a few minutes. Directed a similar application twice a day.

Three days afterwards I found the patient convalescing.—His eyes tolerated the light, and a faint redness only existed. Directed that he should still confine himself to a darkened room, and use a wash of a solution of the nitrate of silver, 3 grs. to the ounce of water.

In a few days he removed 40 or 50 miles from me, and I afterwards learned that he had relapsed.

January 31st, 1854.—The same individual, having arrived in ten miles of my residence, sent for me. Obtained the following history.—A few days after my last visit, he supposed the disease to be perfectly removed; and such appeared to be the case for three weeks, or thereabout; during which time he performed a journey on horseback of a distance of more than one hundred miles, and back; making more than two hundred miles; and whilst journeying had felt no affection of the eyes. Soon after returning, he relapsed with Ophthalmia and Intermittent Fever simultaneously. Was conveyed to Missouri, and placed under the care of a physician reputed to be a wonderful "Eye Doctor;" but derived no permanent benefit—sometimes appearing to improve for a week or two, and then again deteriorating. *Had been relapsing into ague, every one, two or three weeks ever since.* Whilst under the influence of ague paroxysms, his eyes are worse; when that disease is interrupted, they are better. At this time cannot distinguish

the features of his acquaintances. Has ague (tertian) severely.

R. S. Quinine, 25 grs , in 4 doses.

Feb. 8th.—Saw him to-day. Had rode 10 miles. Recognized me in the street. Complained of the wind hurting his eyes.

R. Sulph. Zinc, 5 grs; Water 3 j. To be used two or three times a day.

My *opinion* is, that when the Intermittent Fever is permanently arrested, his ophthalmic affection will soon subside; but I do not at the same time consider his case (ophthalmia) as a peculiar form of *periodic fever*.

In my notes, this case was designated "Ophthalmia, complicated with Intermittent Fever." Perhaps the same terms reversed, would have been as proper, or more so. The disease of the eyes was the most intense, and was the principal source of suffering, and, although considerably mitigated by the jugulation of the accompanying intermittent, perhaps not more so than would have resulted from the sudden reduction of a true synochal fever by appropriate treatment.

This disease, (which would seem to be, in most cases, at least, acute conjunctitis,) prevails to a considerable extent in this region, during the hot months. Other cases will occur in the course of these notes, and I will not anticipate them by further remarks.

CASE 26. *Remittent Fever following Rubeola.*

June 29th.—Infant son of J. M. Payne, aged 18 months.—Had been treated some time in the Spring by another physician, for an acute febrile disease of a protracted character, and had remained somewhat debilitated up to the commencement of the present illness. Eight or nine days ago he was attacked with Rubeola, which progressed as usual to the maturity of the eruptive stage—the anginose affection, however, being remarkably severe. The common time for the subsidence of febrile excitement, and desquamation to take place, passed by, without either of those events occurring. There had been a slight fading. Hoarseness, a severe cough, and a hot, dry condition of the skin, had continued up to the pres-

ent time, with remissions ; the reaction, cough and hoarseness, being most intense on alternate days.

Found the child extremely fretful, with the head, chest, and abdomen very hot ; the extremities rather pale, and moderately warm. Mrs. P. stated that they had been very cold at 12 o'clock, M., (a short time before my arrival;) a frequent convulsive cough, with hoarseness ; bowels somewhat irritated, which may have resulted from a rather free use of purgatives, and *nitrous powders*, (after the formula of Eberle—Nitrate of Potassa 5 parts, Calomel and Ipecac *aa* 1 part.)

R. Dover's powder and nitrous ether, every two hours.

Late in the afternoon commenced giving Sulp. Quinine—1½ grs., every two hours, and continued the same up to 12 o'clock, M., the next day.

After two or three doses of the Dover's powder were given, it was only exhibited as the intestinal irritation seemed to demand.

30th. 1 o'clock, P. M. Left him perspiring, and clear of febrile excitement ; cough and hoarseness have improved very perceptibly.

R. Syrup of Squill, as an expectorant, and Dover's powder for the intestinal disturbance.

For nearly two weeks the child remained free from febrile symptoms, and bowel affection, but still had cough, with slight hoarseness.

July 10th.—Received a letter from Mr. Payne, (a very intelligent gentleman,) informing me that my little patient, the day previous, had had a severe attack of Flux, (Dysentery,) with muco-sanguinous discharges, severe tenesmus and tormina, accompanied by fever ; that he had given frequent doses of rhubarb, castor oil, quinine, and occasionally a little laudanum ; that the disease, notwithstanding, seemed to increase in severity ; that the mucous discharges were quite profuse.

R. Dover's powder, - - - 2 grs.

Acet. Lead, - - - ½ gr.,

to be given every two or three hours.

Wrote to him that I did not suppose the disease persisted

in consequence of any disturbing *substance* which could be removed by cathartics; but that an irritated *condition* existed, and that such agents as were known to allay nervous irritation were, in my opinion, the most appropriate; and insisted that he should carefully avoid any thing calculated to increase the peristaltic motion of the bowels, for some days.

Four days afterwards, the child was brought to my neighborhood in a carriage. The disease had been mitigated; but some intestinal irritation, with small mucous discharges, still continued, as also cough and hoarseness. These conditions were intermittent, supervening every afternoon, but more intensely at tertian periods—at which times some febrile heat was perceptible, with increased fretfulness.

The bowel affection, I felt confident, persisted in consequence of periodic fever; but it yet demanded temporary remedies; for this purpose Dover's powder, with acetate of lead, and sometimes chalk mixture, were used. Several attempts were made to intercept the morbid periodicity with quinine, but failed. I then resorted to Fowler's Solution of Arsenic, 3 drops three times a day. In 3 days some œdema of the eye-lids appeared. The medicine was left off for two days, and then resumed, in doses of four drops. The paroxysms were arrested, and the bowel disturbance only required an occasional dose of the anodyne, for a few days. Permanent convalescence. The pulmonary and throat affections almost wholly disappeared under the use of the Dover's powder.

Feb. 1854.—The child has remained healthy up to this time.

CASE 27. *Pulmonary Affection. June 29th.*—J. M. Payne, (father of the foregoing,) aged 39 years. Tall spare frame. Is the subject of a cutaneous albinoid affection; large portions of the surface, distinctly circumscribed, becoming partially white, as if bleached by the external application of a discoloring agent. Resided many years on the river Arkansas, where he contracted an enormous splenocèle, which only subsided a few years ago, under the plentiful use of chalybeate water, at his present residence, in a hilly region.

Early in the Spring of the present year, when at a con-

siderable distance from home, he was exposed to sudden vicissitudes of temperature, by going out repeatedly from a close room, heated by a stove, into a piercing north-west wind; and shortly afterwards had an attack of hemoptysis, (in which the hemorrhage was profuse,) which subsided in a gradual manner. A slight feverish condition, and a highly disagreeable feeling of lassitude continued, with some cough, which was most troublesome of mornings. A few weeks ago, on returning to his residence, he commenced a plentiful use of chalybeate water, which acted prominently on the kidneys by augmenting the secretion of urine. His general condition rapidly improved; feverishness and lassitude disappeared, cough grew less frequent and harassing, and appetite returned.

He now occasionally has slight pain in the left breast; expectorates small globular masses of a tenacious substance, (resembling coagulated albumen,) floating in thin mucous. Percussion elicited a flat resonance over the region of pain, (between the heart and clavicle,) three or four inches in diameter; the sound in all other parts natural. Through the stethoscope no respiratory murmur could be heard in the left lung; the sound of the heart, and also that of respiration in the right lung, was natural. Tartar Emetic pustulation had been kept up until recently.

R. Pustulation to be continued; and also chalybeate water, as long as it appears to act beneficially.

Jackson's Pectoral Syrup, *

(Sassaf. Medullæ,	-	-	-	-	-	3 j;
Acaciæ,	-	-	-	-	-	3 j;
Sacchari,	-	-	-	-	-	lb. 1½;
Morphiæ Muriat.,	-	-	-	-	-	gr. viii;
Water,	-	-	-	-	-	O. j, or q. s.,

to make the mucilage measure two pints)—to be taken three times a day, in tea-spoonful doses, with five drops, (gradually increased to 10,) of the tincture of Digitalis, to each dose.

August 6th.—The Tartar Emetic ointment had produced an

* See Amer. Jour. of Pharm., New Series, Vol. xviii., No. 1, p. 35.
Vol. 2.—No. 3.

intolerable itching, which harassed him day and night; he made several trials with it, and the same result followed; consequently it was abandoned. He was pleased with the "Pectoral," but occasionally expectoration was difficult, and at such times the pain was augmented. When he discharged the small globular lumps, relief was obtained, and having some Syrup of Squill, he gave it a trial, and found (particularly when nausea was induced,) that he expectorated easily, and felt less pain. Taking a hint from this, and suspecting a scrofulous diathesis, I prepared the following :

R.	Syrup of Squill,	-	-	3 ij ;
	Simple Syrup,	-	-	3 vj ;
	Iod. Potassium,	-	-	3 ss ;
	Tinc. Bals. Tolu,	-	-	3 ij ;
	Muriate of Morph,	-	-	gr. iii ;

The Mu. Morph. to be dissolved, or minutely divided, in a small quantity of water, before being added to the Syrup; and also the Iodide. A tea-spoonful three times a day.

He continued gradually to improve for four months, during which time the above mixture (occasionally left off for a day or two,) a gentle aperient now and then, and the chalybeate water, were the only medicaments taken.

Nov. 2d.—The patient had been attending to business a considerable distance from his residence, (more than 40 miles,) and a day or two ago was exposed to inclement weather; a severe catarrh, with slight hemorrhage from the lungs ensued.

Found a moderate febrile condition, with increase of cough; and an uneasy sensation within a very small space in the left lung, two or three inches below the clavicle; feels as if the affected part could be covered with the end of the finger. Sputa in small quantities, and appear to be formed principally of decomposed blood.*

R.	Calomel,	-	-	-	10 grs.
	Ipecac,	-	-	-	1 gr.

* Through the stethoscope, a distinct sound was emitted at each inspiration, (at the painful point,) resembling the bleating of a goat; but this *egophony* did not proceed from the voice.

Nov. 3d.—Feels better since the operation of the calomel. No fever.

R. To resume the expectorant, (Syrup of Squill, &c.,) and apply over the affected part, *Ol. Tiglium*, mixed with *Ol. Oliva.*; and obviate costiveness by taking pills of aloes and rhei.

He soon regained the degree of health he had enjoyed in the latter part of the Summer. I advised him to return to his residence, and resume the use of the chalybeate water; to take Cod Liver oil in addition to the expectorant, and confine himself to a warm room, (except in very pleasant weather,) through the winter.

No relapse occurred. A great deal of the expectorant was used, and several bottles of Cod Liver oil. When I left for Tennessee, (July, 1853,) he was capable of attending to business on horseback.

Nov. 8th.—Find my old patient able to walk about town, (having resided here for several months,) but is disagreeably affected by the brisk and shifting winds of autumn. During my absence he used nothing but the expectorant. Now has a catarrhal affection.

<i>R.</i>	<i>Sulph. Morph.,</i>	-	-	-	1-6 gr.
	<i>Ipecac.,</i>	-	-	-	1 gr.

two or three times a day.

Dec. 1st.—Resumed the squill mixture, and returned to the chalybeate spring.

Jan. 30th.—Have just learned that his health has improved; that he has gained four pounds during the past month.

In regard to the medicinal agents employed, I confess, (I hardly suppose the confession is criminal,) that I placed most confidence in the *Morphiæ*. Several attempts were made to dispense with it without informing the patient; but at each time he sent me word that the mixture did not act as pleasantly as it had previously done. I have derived, (or fancied I did,) decided benefit from the long continued use of *Morphiæ* in cases of general irritability or nervous erithism, no matter from what organ the condition radiated from. The Squill seemed to act as a mild nauseant, (thereby facilitating expect-

toration,) without debilitating. The Balsam of Tolu was added more on account of its agreeable taste and odor than for any other purpose. The Iodide of Potassium was used in view both of a suspected strumous habit, and its well known favorable action in Asthma, and other derangements of the respiratory function.

Feb. 11th.—A day or two ago a slight hemoptysis occurred, after exertion in running. This is the first hemorrhage of the kind which has been observed for more than 15 months. He wrote that it was very slight. Did not recommend any change in the treatment, except that Pulv. Camph. ($\frac{1}{2}$ gr. to a dose,) was substituted for Tinc. Bals. Tolu.

CASE. 28th. Pleurodynia. June 30th. A negro man belonging to Henry Nave, aged 24; large frame, and powerful muscular development. Just at dark he was attacked suddenly with pain in the right side, (immediately above the region of the liver,) of the most acute character. He made a great outcry, and a messenger was despatched in haste, (three miles.) I arrived early in the night. Found him apparently in great agony; the left hand placed firmly on the right side; tossing frantically; breathing rapidly; eyes thrown upward, as if in convulsion; (but in all his frantic movements, the aforesaid hand pertinaciously maintained its pressure on the side;) he could not, or would not, answer any question; pulse large, full and strong; (he was a large, robust, laboring man.)

R. Opened a large orifice in the median cephalic vein, in the position I found him in the bed, (he could not be placed in any other,) and abstracted, in a few moments, 32 ounces of blood. A little before that quantity had been taken he fell into a calm sleep, and perspired profusely. On being aroused he expressed himself greatly relieved.

R. Hydrar. Chlor. Mit., - - 20 grs.,
to be followed in the morning by castor oil, if it should not operate. The oil was not required.

The next day, he appeared to be convalescing; had no fever, and was able to sit up; but just at night another paroxysm came on of a similar character to the first, and apparently of as great severity, which subsided spontaneously in

the latter part of the night. I was not called upon until morning. Found him as on the preceding morning.

R. S. Quinine, 25 grs., in six doses. All to be taken before sun-set. No other paroxysm occurred. In a week he was laboring in a corn-field.

The blood-letting in this case was only of temporary benefit, as the event proved; and I will take the liberty of expressing a belief, (not as heterodox as it might, at a first, hasty view, appear to be,) that some other powerful sedative would have subserved the purpose; a large dose of a salt of morphiæ, for instance. The locality, which was eminently agueish; the season of the year; the prevailing diathesis; the suddenness of the seizure, without appreciable cause; and the final result; all conspire to sustain the opinion.

More than 20 years ago I practiced blood-letting extensively, and occasionally of late years, and am thoroughly convinced that the benefit derived from it in urgent cases, (inflammatory or non-inflammatory,) depends upon the *manner* in which it is performed. The practitioner who depends merely on *quantity*, will be sadly disappointed; he will find as much difference in therapeutical effect from the abstraction of 32 oz. of blood in five minutes, and the same quantity taken in half an hour, as between a three grain and a one grain dose of opium. In a recent case of a subject with a strong, robust, muscular fibre, (like the present,) the first of either of the remedies would relax the cutaneous exhalents, and moderate the general arterial action; whereas, the latter would be followed by increased heat and dryness of the skin.

(TO BE CONTINUED.)

ART. XII.—TRAUMATIC ANEURISM OF THE AXILLARY ARTERY.—
LIGATURE OF THE SUBCLAVIAN.—RETENTION OF THE LIGATURE
TILL THE ONE HUNDREDTH AND THIRTEENTH DAY.

By L. H. ANDERSON, M. D., of Sumpterville, Ala.*

D. R., aged 32, of Marion, Miss., was accidentally shot by a revolver through the left axilla, 15th Sept., 1851. The ball entered the pectoral muscle at the inner fold of the armpit, and was taken out by an incision through the skin over the scapula near its outer border. The blood immediately after the accident spouted in large jets from the wound, but was at length arrested by compresses and cold applications. Secondary hemorrhage came on the 12th, and again on the 16th day, and his attending physicians, Drs. Ford and Westbrook, of Marion, sent for me to visit the patient, and to take up the artery should I think it necessary. The state of my professional engagements rendering it impossible for me to go forty miles from home at the time, I was compelled to decline the invitation, and I heard nothing further of the case till 20 Nov., when I was again sent for to see him by Drs. F. and W., who in their letter informed me, that soon after the healing of the external wound, a pulsating tumour had commenced growing at the seat of the injury, and was steadily increasing in size, and that the ligature of the vessel seemed to be the only resource to save the patient's life.

I visited them on the 22d, at night—found him a short thick set man, of good constitution, but much reduced by low diet and confinement. His skin was white and clammy, countenance anxious, and his respiration short and imperfect, as if from an instinctive dread of bursting the aneurism by a deep inspiration. The tumour was some two inches in diameter, and pulsated strongly, with a loud bellows sound. There was no arterial action recognizable beyond the seat of injury; and the arm tumefied and semi-œdematous, lay motionless and nearly insensible across the abdomen. Pulse at the oth-

* Published, as corrected by the author for this Journal, from the proceedings of the Alabama Medical Association. Eds.

er wrist 110; appetite and digestion much impaired; sleep disturbed, occasional accessions of fever, bowels soluble.

I saw the patient again in the morning, and determined to operate at once by tying the artery behind the clavicle. I had the patient laid on a table with his head against a south door, for the sake of light, as the day was very dark. His shoulders slightly raised, and his head turned to the sound side. This is the position recommended by Mr. Syme, and far preferable, it seems to me, to the sitting posture, directed by most authors. Putting him fully under the influence of chloric ether, I began the operation by incising the skin from the sterno cleido mastoid to the trapezius. Finding the external jugular not to be in the way, I next divided the platysma, and the layers of fascia enclosing it, on a director, and then cautiously continued the dissection below, removing portions of fat, cellular membrane, and some small lymphatics which were in the way. In this dissection, the superior scapular artery, was divided and tied. Finding it necessary to enlarge the wound, I cut the clavicular portion of the sterno mastoid half through, and in so doing, divided a vein of considerable size which I also secured by ligature. Coming then upon the omohyoid muscle, I had held it out of the way with a blunt hook, and passing down my finger along the scalenus to its insertion, recognized the pulsation of a large vessel behind it. I dissected carefully in the bottom of the wound, and passing a director under the vessel that seemed to be pulsating, found by its thinness, and by the compression of it, not arresting the souffle in the tumour, that it was the subclavian vein. A little deeper exploration soon after, discovered the artery blushing through its sheath, and passing a director under the vessel, I found that pressure upon it completely stopped all motion in the aneurism. I then tied the artery as tightly as possible:

The plexus of nerves was not exposed or disturbed, though they could be dimly seen in their cellular investment. The wound was brought together by a few points of interrupted suture, dressed with simple cerate, and the patient removed to his bed. He soon began to revive from the influence of

the anæsthetic, and vomited some mucous matter. In half an hour he had completely recovered, and was talking cheerfully with his friends. His whole appearance now was completely changed, his expression was bright and happy, his respiration deep and free, and his complexion beginning already to recover a life-like hue. In a few hours, finding he was still doing well, I left him to return homewards.

My interest in the case induced me to visit him again, three days after. Found him regularly improving, and in a fair way to recover entirely. The extremities of the incision were uniting, and the middle portion suppurating favorably. Appetite, digestion and sleep, all good, and warmth and sensibility beginning to return to his arm. I did not see him after this for six months, but heard of him occasionally through Dr. Westbrook. The tumour burst on the 12th day, and discharged grumous blood for several days, but no pus, as is usual. The ligature, though pulled at several times a day, after the first few weeks, did not come away till the one hundred and twelfth day, and then came without the loop. This, however, was spontaneously discharged some days after. The average period of the separation of the ligature, from Dr. Norris' table, is, I think, about the twenty-fifth day, and as well as I recollect, he gives no instance in which it was retained longer than the 80th or 85th day.

The instrument used for taking up the artery, was a common silver director, which I bent to the shape of Gibson's aneurism needle. The ligature was composed of four strands of fine white sewing silk, twisted together, and was secured to a notch cut near the end of the director. It was passed from without inwards, instead of the usual reverse direction, and from the overlapping of the vein, did not seem to be separated from the artery by the scalenus, as is usual. It would have been almost impossible to pass it from within.

I have heard from Mr. R., under date of 30th January, 1854, that his arm constantly improves, and is of great service to him, though not quite as strong as the other. The sensibility of his hand is somewhat impaired, and he sometimes thinks he can feel the pulse at the wrist, while at other

times there seems to be none. He is perfectly contented with his situation, and complains only of some pains in the shoulder, in damp weather.

ART. XIII.—NOTES OF DUDLEY'S LECTURES.

BY FRANK A. RAMSEY, M. D.

I do not know that it will be transgressing propriety, for me to submit to the readers of the Southern Journal of Medical and Physical Sciences, notes of Lectures delivered by Benjamin Dudley, *the Nestor of American Surgery*. There are so very many practitioners of the South and West, who have listened to the smooth and pleasant delivery of this great man, and whose after success in life, in a good degree, is traceable, to the opinions advanced and taught from Transylvania's chair of surgery, for very many years, and which are not preserved in a form durable and easy of access, either by the older or younger practitioners, that I feel sure the appearance in print of such opinions will meet with approbation. Especially those who are but now upon the threshold of the professional arena, and who can not have the wisdom of extensive observation, and profound consideration—the analytical and synthetical winnowing and combination—presented in original Dudley style, will appreciate the publication of notes, even though incomplete. I am far, very far, from reflecting in any degree detrimental to the worthy professor of Dudley kith, now known in American schools. If it were in my power, the more than ordinary acquirements of him on whom it is presumed Nestor intends his robes shall fall, would receive an evidence of my esteem, that could not be ascribed to the influence of name or person; but alone to an appreciation of acquirements and ability. In the name of Dudley, sustained as it is by the worthy professor bearing it, the Kentucky school of Medicine, whatever may be *the seeming from numbers*, in opposition schools, possesses a strength that will be more

largely developed; the reputation of the elder, yet living, keeping in abeyance the strength of the younger. But I did not intend any thing like eulogium; my object is to preserve and extend, opinions expressed by one who, as a Surgeon and Teacher, has been successful in placing him pre-eminent in the affection of his patients, and the regard and respect of his pupils and cotemporaries.

INFLAMMATION.

Bloodletting in inflammation, is for the most part disapproved by Dr. Dudley. He does not regard the remote cause of the diseased action, as being at all influenced by the withdrawal of blood; but on the contrary, it diminishes the reacting power of the system. True, when inflammation is going on rapidly, when disorganization is likely to ensue, bloodletting will be of service in restraining action, until other remedies can be addressed to the cause of the disease. And, when a person has received a wound, or concussion of the brain, and it produces violent inflammation, then it will be necessary to bleed.

LOCAL BLOODLETTING is objectionable for three reasons:—
1. The circulation is so rapid that the depleted vessels will fill again in a few moments. 2. An afflux of humours to the part is unnecessarily induced. 3. The morbid excitement of the application but adds to the irritation, which is intended to be subdued.

LOCAL REMEDIES, of a stimulating nature in inflammation, but add to the disease. Local remedies combining *heat* and *moisture* simply—warm water, or milk and bread poultice—are productive of the happiest effects. There are instances, where the inflammation has weakened the part very much, that stimulating applications may be of service in exciting the absorbents—but they should not be resorted to, *until all inflammatory action is subdued*.

PURGATIVES of the drastic class are never proper in inflammation, unless it is accompanied by dropsy. Under most circumstances, the best purgative, from its extensive influence on the system, is Tartar Emetic—but there are exceptions. In inflammation of the brain, the mutual influence of that organ

and the Liver is such, that it is necessary for remedies to be directed to that gland. Indeed, it will hold as a good general rule, that remedies which act on a particular organ, either directly or indirectly, are to be resorted to, for the relief of that organ when affected; hence aloes should be used, when it is necessary or advisable to deplete from the lower intestines; Saline purgatives and Tartar, in affections of the kidney, &c.

DRINKS. It is doubtful, that either warm or cold, would answer as a general practice. The discrimination of the practitioner must determine, from the circumstances of individual cases, as to the temperature; but in inflammation the drinks may always be acidulated, with advantage.

Some of the effects and attendants of inflammation are adhesion, suppuration, hectic fever, and erysipelas.

ADHESION by the first intention, means, a rapid union of two opposite surfaces when placed in opposition; and is effected by coagulable lymph being thrown out. Mr. Hunter—the first to explain—was mistaken in his theory of union by first and second intention. The idea that the blood thrown out becomes the medium of union is not sustained by the facts of observation. A female mammæ being cut off, and a clot of blood left, union by the first intention can not take place. The lesson of practical value thus taught, is the necessity of waiting after the performance of an operation, until re-action occurs, that the blood may be the more certainly and better cleansed from the parts; for it must be remembered that vessels, even though not bleeding at the moment, or shortly after an operation, may become troublesome when the patient becomes warm in bed, or after reaction has taken place.

Bell and Burns say, there is no inflammation in union by the first intention; but common sense alone shows the fallacy of such a doctrine. The cutaneous vessels which in health had only to support the parts, have now to both support and heal; besides, the application of a delicate thermometer will prove an increase of temperature. The coagula which unites the parts must be *secreted*—any other will prevent union. Tallicotius, three hundred years ago was in the habit of forming from the

flesh of the arm, noses which had been lost—inducing such action in the new cut surfaces as resulted in healing by the first intention; and Hunter and Sir Astley Cooper, in transplanting teeth employed a knowledge of this secondary inflammation, a remarkable instance of which is the case of a boy in Edinburg, who having cut his finger off, had it applied, and it grew whole as before.

SUPPURATION, or healing by the second intention, according to Galen, is very various in time of termination—for it may terminate in two hours, as in a case of sting by a bee, or it may be twenty years or more before pus is formed, as in a case of affected glands of the thorax. Suppuration is healthy or unhealthy. Inflammatory action may be above or below the suppurating point. If above, the proper course is the general antiphlogistic, in connection with local warm applications. But when below, it is necessary to ascertain whether the debility be general or local. Local debility may be separate and distinct from general debility; but general debility involves the whole system, and all its parts. If the debility is general or constitutional, wine, bark, &c., must be given, in connection with proper local treatment, which is the same under all circumstances. Local debility requires the application of the bandage, on the principle that it draws the vessels together, lessens the quantity of blood sent to the part—thus giving the vessels more power to act on the quantity retained in the part. Should this application not be sufficiently stimulating, the bandage may be kept wet with alcohol, &c. An ulcer that has too little or weak action, has rugged edges, and they are turned out; such should never be subjected to the influence of a poultice of any kind, but should be treated with alcoholic and other stimulating washes.

Simpson, a century ago, and since his time, Morgan, an American, both said pus was a secretion, but Hunter has all the credit of the discovery. The ends of the capillary vessels secrete the pus, and when suppuration is occurring can always be determined by the rigors, which invariably precede, accompany, or succeed the formation of pus, and the extent of matter formed is in proportion to the severity of the rigor.

The parts surrounding a suppurating sore, always throw out coagulable lymph, which forms a sack to contain the matter, thus preventing the muscles from being dissected or corroded. The sack has the power of secreting and absorbing; as in discussing a suppurating sore it first absorbs the matter, and is then absorbed itself.

If matter forms under the periosteum, an opening should be made, and a discharge obtained as soon as possible, to prevent absorption of the bone. And if matter form in the fasciæ of any of the joints—as the axilla, forearm, or in the neighborhood of any large blood vessel, a speedy opening should be effected. But in superficial abscesses, promptness is not required; indeed an early opening should be guarded against. In making openings into abscesses, the knife should always be used, and the most dependent portion of the enlargement or of the part affected, selected—making an incision sufficiently large to give the pus an easy exit. In abscess of the Psoas muscles, the incision must be small, and healed up as soon as practicable.

ULCERATION is a solution of continuity with a secretion of pus. Richerand applies the term erosion to it, but this is improper, since the word implies a chemical action, and we can conceive of no chemical laws in the living system. Ulcers are defined by authors generally, to be suppurating sores; but it is an incomplete definition, since many suppurating sores would not come under the head of ulcer—Gonorrhœa for an illustration. Another mode of expression may be used—an ulcer is a suppurating sore, where the parts are removed by absorption. Until the time of Mr. Hunter, ulceration was thought to be an entire loss by breaking down, of the parts; but the process is now better understood, through a knowledge of the absorbent system. The absorbents are co-extensive with the human system, there being no part destitute of them, as is proven by many experiments, such as giving for food madder, and other coloring matter, which after some days will be found in the bones; and the fact that an intestine being ligatured does not necessarily induce death, but on the contrary, the parts cut by the cord throw out a lymph and en-

velop it, whilst the part within the cord, will be absorbed, until the cord passes into the intestines, and is discharged from the system with the fœces. The absorbents act alike on living and dead matter, as is well and often illustrated by the removal of dead bone surrounded by healthy living bone—dead bone in contact with muscle is not so readily absorbed, the soft parts between the foreign mass and the surface being taken up, that the mass may be thrown off. The cellular and dermoid tissues are most readily absorbed.

Absorption is designated as *Ulcerative* when it commences at the surface, and goes inwards; *Progressive*, when profound abscesses, or foreign matter, as dead bone, finds its way to the surface—Progressive absorption may go on with or without suppuration;—*Disjunctive*, when the living parts, acting on themselves, separate dead parts, as is witnessed in the line of demarcation in mortification; and *Interstitial*, when the cellular substance is taken up, the organs being diminished in size, but without destruction of integrity, as is illustrated by the falling off which occurs from fever, or attacks of acute and of prolonged disease.

Ulcerative inflammation is *simple*, for example, a sore produced on the foot by wearing a tight boot, or on the back of a horse by the pressure of an ill setting saddle; and *specific*, for example, Scrofula, Syphilis, Small Pox, &c., diseases capable of being reproduced by the application of their matter to systems previously unaffected; local, when confined to the point first receiving injury from some cause not connected with the economy; and constitutional, when produced and sustained by a peculiar or unhealthy condition of the general system. It is difficult always to designate the character of an ulcer, and can only be done from the history of each case.

HECTIC FEVER, in its occurrence is irregular without regard to time; the cheeks become flushed, the palms of the hands, and the soles of the feet, burn, the pulse small, hard and frequent, accompanied with great debility of the system, and after, or terminating, the paroxysm, a cold, clammy sweat; and is attributed by Thompson and other authors, to the absorption of pus. That pus may be absorbed is undenied; but

that hectic fever results is by no means an admitted fact. Indeed cases are not wanting of the absorption of pus without any hectic fever, and of hectic fever in systems without any pus. An instance of hectic in its worst development, occurred in a previously healthy, athletic child, which withstood the best directed efforts. During a process of washing, his nates were touched by his mother, causing him to cry violently, and producing apparently great misery. On examination a prominence was discovered, which was opened, and a large darning needle extracted, after which the child rapidly recovered, and the hectic never returned. In this instance it was produced by irritation alone—there was no matter formed. Hectic is often an accompaniment of Fungus Hæmatodes, though no pus is formed. It arises frequently from constitutional derangement. A patient who had been discharging pus from his lungs for two or three years, became hectic, and had diarrhea. Calomel and opium were given in combination, and effected a cure in about twenty days; before which time he had not walked for nine months. This was a case of what is called Gastro-Hepatic Consumption—a sympathetic disease arising from chylopoetic derangement; a disease of frequent occurrence in the South, and which may be cured by addressing the remedies to the digestive organs.

ERYSIPELAS, an eruption presenting four appearances, and therefore designated as Pustular, Serous, Desquamative, and Gangrenous. Pustular Erysipelas comes in small follicles—as small as possible. Serous Erysipelas appears in very small boil-like formations, discharging a little fluid, of a serous character. Gangrenous Erysipelas, is an inflammation so great as wholly to destroy the powers of the part.

Erysipelas arises from a morbid condition of the stomach, intestines and liver, and is therefore to be treated constitutionally, together with the local application of warm water. The common remedies—starch, rye-meal, chalk, &c., are improper, except in the last stages, or in serous and pustular Erysipelas, when getting well, to protect the parts. Elm bark, sugar of lead, cream, and cold water, are out of the question, and should never be permitted.

ART. XIV.—TRANSACTIONS OF THE TWENTY-FIFTH ANNUAL SESSION OF THE TENNESSEE STATE MEDICAL SOCIETY, CONVENED AT NASHVILLE, APRIL 5TH, 1854.

The Tennessee State Medical Society met this day in the Firemen's Hall, at Nashville. The President, Dr. Felix Robertson, called the Society to order, and requested the members to register their names, and pay over to the Treasurer the usual annual fee. Whereupon the following gentlemen came forward and paid their fees, viz :—

Dr. FELIX ROBERTSON,	-	-	Nashville,
" A. H. BUCHANAN,	-	-	"
" E. B. HASKINS,	-	-	Clarksville,
" R. M. PORTER,	-	-	Nashville,
" T. M. WOODSON,			
" J. D. WINSTON,	-	-	Nashville,
" J. H. MORGAN,			
" R. C. FOSTER,	-	-	Nashville,
" J. W. RICHARDSON,	-		Smyrna,
" W. H. MORGAN,	-	-	Nashville,
" R. THOMPSON,	-	-	"

On motion of Dr. C. K. Winston, the Report of the committee on "Revision of the Constitution and By-Laws" was called for and read—Dr. Buchanan, Chairman. On motion, the Report was received and adopted.

Dr. Yandell proposed Dr. Paul F. Eve for membership. Unanimously elected.

On motion of Dr. J. D. Winston, Dr. Joseph N. McDowell, of St. Louis was unanimously elected an honorary member of the Society, and a committee appointed to notify Dr. McDowell of his election.

On motion of Dr. Buchanan, the following was adopted as the order of business for the present meeting, viz :

- 1st. Reports of Officers.
- 2d. " " Special Committees.
- 3d. " " Standing Committees.
- 4th. Reports of Cases.
- 5th. Appointments by the President.

1st. On motion, the Treasurer was called upon for his report. Requested permission from the Society to report this evening—granted.

2d. Chairman of the committee of the "History of Continued Fevers of Tennessee," Dr. W. P. Jones, stated that the committee had been unable to obtain the necessary aid to enable them to prepare a satisfactory report, and begged to be discharged. On motion of Dr. Haskins, the committee was released.

3d. Committee on the "History of Surgery of Tennessee;" the Chairman, Dr. Avent, not being present, on motion, the committee was continued.

4th. Committee on "Obstetric Surgery of Tennessee," Dr. Watson, Chairman, not present. On motion, the committee was continued.

5th. Committee on "Epidemics of Tennessee," Dr. Haskins, Chairman, not prepared to report. In lieu of a report, Dr. Haskins offered a paper on a chemical analysis of 181 urinary calculi, which was read at the request of the Society, and laid over for subsequent consideration and discussion.

On motion, adjourned to 2½ o'clock.

AFTERNOON SESSION.

On motion of Dr. Eve, the paper of Dr. Haskins was referred to the "Committee on Publications," with instructions to publish in the Transactions at the expense of the Society.

On motion of Dr. Buchanan, Dr. A. A. Hatcher of South Nashville, was unanimously elected a member of the Society.

6th. Committee of the "Medical Botany of Tennessee." The Chairman, Dr. Currey, being absent, the committee was continued.

7th. Committee on the "Statistics of Extra-uterine Pregnancy," Dr. Robert Martin, Chairman, not present. Committee continued.

8th. Committee on the "Medical Literature of Tennessee," Dr. Yandell, Chairman, not prepared to report. On motion of Dr. Haskins, the Chairman was excused, and the committee continued.

9th. Committee on the "Medical Biography of Tennessee," Dr. W. K. Bowling, Chairman, not present. Committee continued.

On motion of Dr. Eve, the fact was ordered to be recorded in the Transactions, that this Society has discharged its duty to the people of Tennessee, in laboring to secure the enactment of a law for "The Registration of Births, Marriages and Deaths"—and that the Society throws the responsibility of the failure upon the Legislature.

10th. Committee on "Case Book," Dr. Yandell, Chairman, reported that it was most expedient, under all the circumstances, that each physician keep his own case book, after his own taste. Accepted, and the committee discharged.

REPORTS OF CASES.

Drs. Duvall, Maddin, Woodward, Robb, absent. Dr. Foster not prepared to report, excused. Drs. Wendell, McCullough, Knight, Ransom, Park, Evans, McDaniel, Whitaker, not present. On motion of Dr. Haskins, Dr. Whitaker was requested to prepare a report of a case, and furnish it for publication in the Transactions.

Dr. J. J. Abernathy not being present, was continued as orator for the next annual session.

On motion of Dr. C. K. Winston, Dr. Richardson was requested by the Society to read a report of a case, of some interest, and on motion of Dr. Thompson, the author was requested to prepare the report for publication in the forthcoming Transactions.

On motion, adjourned to 10 o'clock to-morrow morning.

TUESDAY MORNING, APRIL 6TH.

Society convened pursuant to adjournment, the President, Dr. Robertson, in the Chair. Minutes read and adopted.

Dr. W. K. Bowling appeared and took his seat, and on motion, was excused as Chairman of the committee on the "Medical Biography of Tennessee"—continued.

On motion of Dr. Eve, Dr. S. C. Edgeworth, of South Nash-

ville, was unanimously elected a member of the Society.

On motion of Dr. T. N. Woodson, Dr. H. M. Clements was unanimously elected a member of the Society.

Treasurer's report read and received, and the Treasurer authorized to audit and settle claims against the Society.

REPORT.

W. P. Jones, to State Medical Society,	Dr.	
1853. Amount of money for initiation of members,	\$102 00	
Amount from former Treasurer, Dr. Abernathy,	30 00	
	<hr/>	
Total, - - - - -	132 00	
	Cr.	
Amount paid for printing proceedings, by order of the President, - - - - -	125 00	
Am't paid for enveloping, sending to post-office, &c,	2 00	
Amount paid McKennie, for two years' advertising,	5 75	
" " for Stationery, - - - - -	40	
	<hr/>	
	133 15	
	132 00	
	<hr/>	
Due Treasurer, - - - - -	\$1 15	

On motion of Dr. C. K. Winston, Dr. Eve was requested by the Society, to read a paper which he had prepared at the request of Dr. Avent, Chairman of the committee on the "History of Surgery of Tennessee;" which, on motion, was ordered to be published with the Transactions.

Dr. R. Martin appeared and took his seat, tendered an apology to the Society, for the failure of the committee to prepare a report on the "Statistics of Extra-uterine Pregnancy," and at his request, was continued as chairman of the committee.

On motion of Dr. Winston, a committee was appointed to investigate the subject of Tuberculosis, of which Dr. Has-kins was appointed Chairman.

On motion, the assessment for the present year was fixed at \$3.

On motion, it was resolved that the time of meeting of the next Annual Session be changed to the 1st Tuesday in April.

On motion, 250 copies of the proceedings were ordered to be printed, and 50 copies to be retained by the Secretary.

On motion, adjourned.

FELIX ROBERTSON, *Pres.*

J. W. KING, *Secretary.*

OFFICERS OF THE SOCIETY.

FELIX ROBERTSON, M. D., *President.*

E. B. HASKINS, M. D., *Vice Pres.* R. C. FOSTER, M. D., *Cor. Sec.*

J. W. KING, M. D., *Rec. Sec.* W. P. JONES, M. D., *Treas.*

COMMITTEES ON SPECIAL SUBJECTS.

On the History of Surgery in Tennessee, B. W. Avent, M. D., of Murfreesboro', Chairman.

On the History of Obstetrical Surgery in Tennessee, J. M. Watson, M. D., of Nashville, Chairman.

On Epidemic Diseases of Tennessee, E. B. Haskins, M. D., of Clarksville, Chairman.

On Medical Botany of Tennessee, R. O. Currey, M. D., of Nashville, Chairman.

On Statistics of Uterine Pregnancy, Robt. Martin, M. D., of Nashville, Chairman.

On the Medical Literature of Tennessee, D. W. Yandell, M. D., of Davidson county, Chairman.

On the Medical Biography of Tennessee, W. K. Bowling, M. D., of Nashville, Chairman.

On Microscopical Investigations, E. B. Haskins, M. D., of Clarksville, Chairman.

Committee on Publication—Drs. King, Bowling and Buchanan.

MEMBERS APPOINTED BY THE PRESIDENT TO REPORT CASES.

DR. LIPSCOMB,
 " MCGAVOCK,
 " WINSTON,
 " RICHARDSON,
 " BUCHANAN,
 " EVE.
 " MADDIN.

DR. HATCHER,
 " KING,
 " FOSTER,
 " THOMPSON,
 " HASKINS,
 " BRIGGS,

ART. XV.—EMPIRICISM IN THE MEDICAL PROFESSION.

We copy the following sensible remarks from the Iowa Medical Journal for February, the first No. we have seen of this periodical.—Those in the profession pandering to quackery in the manner alluded to, ought to be publicly exposed. If there are any such in this region, we hope they may be shown up, openly, fearlessly, so that none may mistake. That the profession here, taken as a whole are highminded and honorable is certain, but there may be exceptions to the rule, and we have heard frequent intimations as though there were.

There is, in fact, no doubt that empiricism is increasing in the profession throughout the country. Indeed we have heard it insinuated that there are even Medical Journals *operating under a "regular" flag, and yet in the confidence of every species of irregularity.* We believe there are none of this sort at present on our exchange list, but if such there are any where, they ought to be singled out and held up as examples to public gaze, that he who runs may read. Wolves we hate, but wolves in sheep's clothing, we despise. And above all things do we despise in the medical profession and press, a covert, clandestine, skulking way of doing things—seeking to accomplish its purpose by indirection, dissimulation, subterfuge, sly cunning, &c., even if it were in a good cause, (where in truth such is seldom found,)—as sailing under false colors, ostensibly against quacks, yet carrying on the most flagrant species of quackery, professing, it may be, great zeal for the profession, yet adopting the most efficacious means possible to degrade it to a level with the basest charlatanism. In such cases we think the press, when it deigns to rebuke, ought to speak out, unequivocally, in tones of thunder, that the world may hear and know. Failing to do so, it betrays a want of manliness and independence unworthy of itself, and had better remain silent, for it will do little good, and perhaps great injustice.—We remember seeing in a journal some time ago, an account of the disgraceful circumstance of "McClintock

School" graduating a Thompsonian quack, in which the *name* of the offender was "omitted," on the score of being "personal;" thus sparing a disreputable school, and leaving its respectable neighbors to share the opprobrium which, indeed, as we understood, came to be fastened upon the "Jefferson Medical College."

We have been led to premise these remarks in view of the high importance of uprightness and sincerity in the profession and of candor and independence in the medical press.

B. W.

PROFESSIONAL EMPIRICISM, BY GEO. W. HALL, M. D.

As a great deal has recently been written on quackery of one kind or other, and thinking that attention might be profitably directed to empiricism as it exists in the profession, I will mention a few things which I deem to be wrong. Most writers refer to quackery out of the profession, and speak of those who prey on the public and make no claims to legitimate medicine. This is well enough, and such imposters deserve all they get, and more, but I insist that writing and speaking against *pretenders*, is not the most effectual way to put them down.

Those communities of Christians flourish best where each member attends strictly to the practice of religion—obeys all requirements of duty, and does not abuse others who think and act differently.

It is just so in Medicine, and if physicians will attend faithfully to their proper business—the study of man's complex conformation—his physiology—the many diseases to which he is incident—the proper means to be used in alleviating his sufferings—and the most rational system of prophylaxis possible for human wisdom to devise and institute—the science, that most noble and exalted of all others, will become as a "city set upon a hill" shedding light and knowledge on all around, and rendering man's pathway from the "cradle to the tomb" radiant with health and prosperity.

This is, I think, the proper and only true business of the physician, and if every one were to do so, mere pretenders, and those imposters would be compelled of necessity to leave the field to its rightful owners. But instead of this, many to whom the people look as the embodiment of professional knowledge and integrity, declaim loudly against the *outsiders*, to the neglect of that most important and essential requisite, self-culture.

The physician who will attend assiduously to the discharge of the manifold duties of his profession, will always have his mind and attention usefully occupied, and will not stoop to notice every charlatan he must necessarily often meet. But there are those who pay a total disregard to most points of professional honor, and sometimes decency, in order to gain practice, and the esteem of the conceited and foolish among the community.

There are others in the habit of so prostituting the profession, as to recommend the use of patent medicines, where they find their customers in favor of their use. I know an individual, possessing a fair share of patronage, who often permits his patients to use "Davis' Pain Killer," both internally and externally, and other similar nostrums, along with his remedies. Can the public have full confidence in medicine, when those regarded as regular physicians act thus? How much better it would be for that individual—his patrons—and the science—which he thus dishonors—if his influence were placed in opposition to such nostrums. Such a man does the profession more harm, and by his influence assists more in bringing it into disrepute than a dozen "claudentine physicians," and until it is purged of such, we may look for impostors of various kinds, to hold an enviable place in public confidence and favor.

There are others, who cater to the morbid appetites of the vulgar in other ways equally disreputable, and opposite to professional etiquette.

I allude to the custom of slandering competitors—of cringing to the wealthy for their influence—of undercharging—of adopting the creed of some church merely for "material aid" and many other things known to all, and known to be an outrage on the fair name of the profession.

Those who dishonor their profession, dishonor themselves—lose everything and gain nothing.

Others sacrifice their standing among physicians at the shrine of mammon, but what will a few hundred dollars be worth when gained at such a sacrifice? To "live a life of duty done," should be the aim of every physician—the goal of his ambition, and it is the only sure way of having an unblemished character while living, and leaving an untarnished name to posterity.—*Iowa Medical Journal*.

ART. XVI.—THE MEMPHIS MEDICAL COLLEGE.

The source commends the gift,
And the gift commends the givers.
It is the Bible.—PROF. PORTER.

With unaffected pleasure we call the attention of our readers to some of the addresses, &c., attendant upon the Commencement of the Memphis Medical College. But first let us inquire why it is that we are prone to select from the masses of men, and admire certain persons in every community? Is it not usually—other things being equal—because those persons embody and defend certain great moral principles which we have been accustomed to regard essential to the well being of Society? And this being true, how incalculably more worthy our admiration, a whole class of such persons—holding up to the gaze of the world, not only the principles which conspire to make a gentleman, but at once, the source and embodiment of all, yes ALL moral principle, the Bible. Truly and beautifully, was it said by Prof. Porter to the Memphis Medical Class:—The source commends the gift, and the gift commends the givers. And heartily do we honor the givers; and commend the School for its distinguished and eminently intellectual and moral position. Dr. D. L. Rowe, of Texas, on the part of the graduating class, presented Prof. Porter with an elegant and costly Bible, and addressed him thus:—

REVEREND SIR:—As the representative of the graduating class of the Memphis Medical College, do I appear in order to express some token of our high esteem and gratitude for your gratuitous and instructive lectures, and well-timed admonitions, as professor, during the past session.

Your teachings in Geology and Natural History, have been both instructive and edifying, and opened many a new and pleasing channel for thought in time to come, to which we must ever have been strangers without you. And truly do we feel that your pious instructions, too, have not been without effect, and know that you have indeed scattered bread upon the waters, that will be gathered many days hence.

We present you, sir, this Bible, as a token of friendship; not for its intrinsic value, but as a faint representation of feel-

ings replete with esteem and regard, and because it is in good keeping with your high and holy calling.

Behold the book, whose leaves display,
The road to truth, to life, to everlasting day.

Take it, sir, and ever remember that with it you receive the unfeigned respect of the graduates of 1853-4.

And in conclusion, sir, allow me in behalf of my classmates, already commissioned by the learned faculty of the Memphis Medical College, to ask your prayers that we may not disgrace our calling, but go forth as the good Samaritan, comforting the sick and the afflicted, every where, and that we may finally, meet again, where meeting and parting will be no more.

To which Professor Porter replied as follows :

It would be inappropriate and unsuitable for me to attempt, sir, to disguise the emotions of satisfaction and pleasure which I feel at the tender by you, of this token of regard from the class of the Memphis Medical College. Pleasant has been my connection with this College, and intercourse with its faculty, distinguished alike for urbanity of manners, and scientific and medical learning ; pleasant to me has been the part which I have taken before the class of 1853-4 ; so much so that I could have wished, on making my closing lecture a few days since, that it had been the first of the session. Now, at the conclusion of the session, to receive this tribute of respect from those with whom it has been such a satisfaction to meet from time to time, affords me, not using the language of adulation, no ordinary pleasure. The source commends the gift, and the gift commends the givers. It is the Bible. Handsome as to mechanical execution ; marked by taste in the flattering inscription ; and divine in its contents. I consider it no less a tribute to myself, than an expression of the moral sentiments, and principles of the donors ; and of the institution of which they have been ornaments—alike in respect to intellect, to moral deportment, and social intercourse.

You have been pleased, sir, to refer, in complimentary terms, to the services which I have rendered in connection with geological science. Geology has been said, by a great man, to be inferior to no other science, except astronomy, in the magnitude and sublimity of the objects of which it treats. I doubt not but it will, at no distant day, yield to none of the sciences in the substantial benefits which it will confer on medical science, save that of chemistry. Its harmony with the Mosaic record, once feared and doubted, is now found un-

mistakeable and divine. When sufficiently popularized and brought to a level with the general mind, it will afford more pleasure than any human researches or investigations; for it is a world, I might say worlds, of wonder; compared with its facts, fiction is tame, and imagination lags behind. Every mountain chain, with its entombed creatures and fossil remains, reveals its legends of former creations. Each island, volcano, and continent, tells of wondrous and marvellous changes.

I now tender to you, sir, and through you to the class which you represent, my hearty acknowledgements for the mark of favor which you have been please to confer on me. I not only regard this book as being in a high degree in unison with my sacred ministerial calling; but its spirit is of a kindred nature with those great and acknowledged principles by which medical science is governed.

I assure you, sir, that the warmest wish of my heart, and the sincere petition of my spirit shall be, that the graduating class, of which you are now the representative, may become eminent in your useful profession, ornaments in society, and that you may relieve the sick, assuage suffering, abate pain, and smooth the couch of misery. I shall likewise remember in the same manner, your medical alma mater, believing that the progress of medical education constitutes one of the greatest blessings of human society.—*Memphis Medical Recorder*.

We congratulate Prof. Porter on the evidences above given of his being up with the times. And that "Geology will at no distant day yield to none of the sciences in the substantial benefits which it will confer on Medical Science, save that of Chemistry." we as fully believe, as though we ourself were the author of the remark; and our appreciation of this sentiment is conclusively proven by reference to this Journal, the Editors of which, have at considerable cost, published within a year, two Geological maps, representing the several divisions of the entire State. And Dr. Currey is now in an adjoining State, making still further geological researches and observations. We have long entertained the belief that miasm, which has ever retarded the progress of medicine, and other sickly and attenuated theories of the various forms of disease peculiar to certain localities, must inevitably give place to facts founded upon this more substantial basis. Here, to the cultivated Medical mind, is a field, vast, beautiful and inviting.

W. P. J.

ART. XVII.—GEOLOGY OF BENTON COUNTY, ALA.

[The following report was published a few weeks ago in one of the city papers; and from a desire to preserve it in a more convenient form, it is transferred to the pages of this Journal. Its author has been devoting his entire time to a geological exploration of the States of Alabama, and of Georgia, in connection with that of Tennessee, and hopes at no very distant day to present the readers of the Journal with the result of his observations, especially with reference to the influence exerted by the geological character of these States upon health and disease.]

MESSRS. McROBERTS & Co.,

GENTLEMEN:—I have the pleasure of placing before you the following description, made at your request, of the lead mine recently purchased by you in Benton county, Ala. The tract of land on which it is found, and which contains 550 acres, is situated four and a half miles west of Jacksonville, the county seat of Benton, and is in the form of a parallelogram, the longest diameter being from East to West. The general surface of the country is gently undulating, the high lands being of a silicious nature, and belonging to the Devonian system, well characterized by its usual fossils, while the intermediate valleys, wide and fertile, present here and there the slightly upturned edges of strata of limestone, of a grayish white color, and semi-crystalline structure. The highlands are densely covered with a majestic growth of two varieties of pine, the long and the short leaf, and the valleys, being of a calcareous nature, abound in the hickory, the oak, the ash, and the elm. The northern and southern boundaries of your tract are skirted with these highlands, with a rich and fertile valley between, extending throughout its entire length.

At the eastern extremity of this valley, the vein of lead first makes its appearance, and though its locality has been known for some time, and even probably by the aborigines of the country, as there are found fragments of broken crucibles near the spot, of their peculiar manufacture, yet it was not

till recently opened to a sufficient extent to give any idea as to its value as a mine, or to the direction of the vein. It was noticed that all along the south side of the valley, wherever the limestone strata cropped out, there were found indications of the same ore intermingled with the rock. Several slight openings had been made at various points, and all attended with good results. The principal opening of the mine has been made at the eastern extremity of the tract of land, and the ore is found there, as at other places, associated with the limestone. A recent opening at this point of about 30 feet in circumference, was attended with the following results: After passing through one foot of surface soil, a limestone was reached. Some half dozen charges blew off this stratum to the depth of three feet, exposing to full view a rich vein of lead ore, not intermingled with the limestone, as in the surface rock, but in a stratum of its own, three feet wide and gradually enlarging where it disappeared under the bank. Drilling a hole near the side of the vein, another charge developed it still more, at the same time lifting up in detached pieces more than one thousand pounds of ore. Gathering these fragments together, they were placed in an iron-bound box, for shipment. Satisfied with the developments thus made, the vein is left exposing an average surface of three feet in width, and eight feet in length, with every indication that it widens and enlarges as it passes under the ground. The general direction of the vein conforms to that of the limestone, being a few degrees to the south of west, and there is no doubt the ore extends throughout the valley, increasing in width, and with but a slight, if any, variation in the depth from the surface. The stratum of limestone in which the ore is found, consists in a great degree of crystalline particles of carbonate of lime.

The composition of the ore was found on analysis to be as follows:

Lead,	-	-	-	-	-	79	5
Sulphur,	-	-	-	-	-	19	5
Silver,	-	-	-	-	-	1	0

100

though a more accurate analysis than I was enabled to make

with imperfect cupels, may cause a slight variation in the proportions of each ingredient.

Specific gravity 7.8—8.23. The ore is lead grey—granular, and in amorphous masses. Other minerals found associated with it are Carbonate and Sulphuret of Zinc, and Sulph. Baryta, but only in small proportions. This mine of lead being successfully opened, various manufactures will at once spring into existence at this place. In addition to the various forms of bar and sheet lead, and lead pipe, it would also give origin to the manufacture of white lead, which sells in this and the adjacent counties at \$3 50 a \$4 per keg of 25 lbs.—of Litharge and Red Lead, as well as the various other paints into which lead enters as the principal ingredient, besides the erection of towers for the manufacture of shot. The timber for fuel exists in great abundance, while the lands themselves are of that fertile and easily improved character, as to reward the diligent husbandman, and sustain a large manufacturing population, being adapted both for the culture of cotton and of grain.

The country is thickly settled, the villages and the county seats of the surrounding counties being in a thriving and prosperous condition; and as the buildings are most generally constructed of wood, a market is at once afforded for every variety of paints. Jacksonville, the county seat of Benton, with a population of nearly 1000, has only four brick buildings, while much taste is displayed in the construction of their frame buildings, the popular style of architecture embracing a verandah the entire length of the front. Rome, Ga., about 50 miles distant, is a city of about 4,500 inhabitants, and for beauty of location, and architectural taste in its private mansions, which are mostly of frame, is rarely surpassed. Being at the head of navigation of Coosa river, and also forming a junction by a branch Railroad with the Georgia Road, it has become a shipping port of some importance, there already having been shipped from this point the present season not less than 20,000 bales of cotton.

As to the accessibility of the lead mine, the Tennessee river, and Selma Railroad, partially completed, will pass within

one mile, while the Coosa river, just eight miles distant, also affords an outlet either through Rome to the Atlantic cities, or down the stream to Mobile and the Gulf—and there is also in contemplation the extension of the Rome Railroad through Jacksonville, to connect with the Selma Road.

I remain, gentlemen,

With much regard, yours, &c.,

RICHARD O. CURREY.

Nashville, Tenn., March 20, 1854.

REVIEWS.

ART. XVIII.—CLINICAL REPORTS *on Continued Fever*. By AUSTIN FLINT, M. D.

The above, is the title of a work recently from the press, for which we are indebted to the courtesy of Mr. H. C. Morton, of Louisville, Ky.

In this work, Dr. Flint has presented the notes, more or less in detail, of one hundred and sixty-four cases of Continued Fever, observed by him chiefly in the Buffalo Charity Hospital; the prime object of the author being, to establish the identity or non-identity of Typhus and Typhoid Fever. In accomplishing this object he has thrown a broad light upon the path of science, by drawing a picture of these obscure, (and in many parts of the country, unknown,) forms of Fever, so clear and distinct, that the most unpractised diagnostician may at once recognise them; in fact, he has “held the mirror up to nature,” in which her truths are most clearly reflected.

As a model of close observation, and analytical exactness, these Reports are worthy of all imitation by those who would cultivate, with profit, the vast field of Medical Science.

We will not attempt to follow the Report, in detail, through its several stages of development. Suffice it to say, that our

author arrives at the conclusion, that Typhus and Typhoid Fevers are entirely distinct types, resting upon or involving, wholly different pathological lesions, and calling for different therapeutical agents—though it must be confessed, that the number of cases of doubtful type, presented in the Report, in which the symptoms of both forms met and blended, and the number of cases classed as Typhus, in which post mortem examination revealed the lesions of Peyer's glands acknowledged to be characteristic of Typhoid, afford the advocates of *identity* some ground for cavil.

The mooted question of contagion, as regards Typhoid Fever, is very effectually put to rest by the history of that disease, as it occurred at North Boston—a history, in all essential points identical with a Report of cases published by us in a former number of the Journal, from which we attempted to show the contagious nature of the Fever.

Upon the subject of treatment, our author's views are sound, and eminently conservative; for the benefit of "*heroic practitioners*," who are too gallant to permit the enemy to invade their camp and retire without a blow, we quote the following very just remarks:

"In the majority of instances, the tendency of the disease is to end favorably. If we study the history of a series of fatal cases, we find that the unfavorable issue is generally owing to causes not belonging intrinsically to the disease; for example, various complications, like pneumonitis; or what may be distinguished as accidents, like hemorrhage, intestinal perforation, apoplectic coma; or external circumstances, such as the absence of hygienic advantages, or diminished power of resistance from enfeebled health, &c. All these are not, properly, elements of the disease, some being incidental to it, others wholly adventitious. Divested of every thing collateral, or superadded, affecting its progress in an unfavorable manner, there is reason to believe that termination in recovery, might almost be considered a law of the disease—now, from these considerations, it appears to be a legitimate deduction, that the management of Continued Fever, *per se*, under the qualifications embraced in this division of the subject, does not claim efficient medicinal interference. In several of the cases which I have observed, the medicinal treatment has been virtually nugatory, consisting only of slight palliative remedies on placebos."

The remarks of our author on the employment of cathartics in Typhoid Fever—a class of remedies so recklessly, nay, murderously employed by too many of the profession—are so full of practical import, that we give them in full. After showing that diarrhea, and even hemorrhage, is apt to follow the operation of a purgative, he says :

“The remote, or general effects of this class of remedies, is to diminish the vital forces, and conduce to prostration. In other words, they are debilitating in their tendency, and hence, it is reasonable to suppose, that they may be productive of harm, rather than good. Although this phraseology is rather indefinite, owing to the want of precision in our knowledge of the remote effects of cathartics, as well as various other remedies, on the organism, it conveys ideas which are practically appreciable, with which practitioners are sufficiently familiar.

“For the reasons, therefore, which I have thus endeavored, briefly to set forth, I think purgatives are not useful in the management of Continued Fever, except there arise some special indication for their use. Constipation alone may furnish an indication. If the bowels do not move spontaneously after several days, even if no evils are apparent, it may be the part of prudence to effect a movement. But for this, so far as my experience goes, active cathartics are not requisite. Remedies distinguished as *laxatives* will suffice, and even these, simple injections will usually render unnecessary. * * *

* * By omitting cathartic or laxative measures, unless they appear to be specially called for, the evacuations which take place spontaneously will sometimes preserve the appearance of health, a fact which perhaps hardly appears credible to those who are accustomed to move the bowels daily by medicinal means.”

We may add, that the Doctor, assuming that the mere fact of the presence of Continued Fever is no warrant for the administration of purgatives, and the presence of the fecal matter would be less likely to confer irritation, than the administration of remedies for their removal, sometimes permitted his patients to go even eight days without an alvine evacuation, and what may excite wonder in some, they did well.

Under the head of “general indications,” our author enumerates what we regard the most essential features of the treatment, viz : Free air, cleanliness, proper nutrition, and

supporting measures, or stimulants; the latter he thinks should enter early and boldly into the treatment, as soon as there are expressions of general debility. Brandy is preferred, given in doses of a table spoonful, repeated at intervals in proportion to the degree of debility; under the influence of this stimulant, he has often seen the gravest symptoms, such as coma vigil, low delirium, rapid pulse, &c., yield like a charm.

With this, we close our remarks on the "Clinical Reports." The work is neatly gotten up, and contains nearly 400 pages. It is alike creditable to its author and to the Medical Literature of our country. In the hands of the profession generally, it cannot fail of doing important service, by clearing up doubts and difficulties of Diagnosis, and indicating a safe and rational mode of treatment. With such a "chart of symptoms," no one need be guilty of mistaking measles for Typhoid Fever, as we knew a physician to do recently.

Our enterprising friend, Mr. H. C. Morton, is now sole proprietor of the work. He is prepared to furnish copies to any part of the United States, free of postage, upon the remission of \$2—address him at Louisville, Ky.

T. A. A.

ART. XIX.—HOMŒOPATHY: *Its Tenets and Tendencies, Theoretical, Theological, and Therapeutical.* By JAMES Y. SIMPSON, M. D., F. R. S., etc. First American, from the third Edinburgh, edition. 8 vo., pp. 304. Philadelphia: LINDSAY and BLAKISTON. 1854.

The present edition of this work, says its author, "is so greatly increased beyond the last as almost to form a new work." It presents a very complete scanning and refutation of Homœopathy, leaving little else to be done for the uprooting, to unbiased minds, of this specious system of delusion.

The following occur as some of the means enabling Homœopathy to obtain its temporary foothold:

1st. The earnestness and zeal with which it was blazoned forth, the outcry against "charlatanry," the sweeping, uncompromising and apparently indignant denunciation of what

Hahnemann calls the "unhallowed main object of the old school of medicine," the unqualified laudation of the "new" system, its "infallibility," its wonderful "cures," its "heavenly mission," &c., were well calculated to take by storm the unthinking multitude. It is indeed but the means by which every antecedent or subsequent empirical system, scheme or nostrum, has been promulgated from and anterior to the time of Paracelsus Bombastus, etc., with his Elixir of Life, down to the Humbugs of the present day.—The cry of "Stop Thief," to divert attention and lull suspicion, and then asservations, broad and positive, and therefore resistless to the honest-minded credulous, suffice for the debut. The next step is to gain the sympathy of the mass, easily done by vouchsafing to be their protectors, and finding a pretext for the shout of "persecution"—a pretext soon afforded in the indignation such effrontery cannot fail to arouse, and still better if in the undue manifestation of opposition from parties supposed to be interested.—Of the potency of these means, Homœopathy appears to have been apprised at the outset of its career, and to have used them with signal success.

2d. By the efforts taken to identify itself with Christianity, thereby arousing religious superstition and enthusiasm in its behalf. Hahnemann assumes a garb of holy philanthropy, heralds his supposed discovery with a flourish of pious declamation, and talks as if he were a heaven-commissioned benefactor, to deliver the race from "cruelty" and "abomination;" some Homœopathists profess him to have been inspired; he is spoken of by his "disciples" as an "Apostle," a "messenger from heaven," "the new evangelist," "the most inspired of discoverers, sent to render medicine like the other sciences, properly Christian." "Homœopathy," it is said, "is not a science merely, but also for those who comprehend it, a sublime devotion, a *form of religion*, a rainbow of divine union, holding out to mankind the promise of speedy regeneration."—What better calculated to enlist the sympathy of credulous zealots and win the confidence of unsuspecting piety.

Nor do appeals like these stop here. They address themselves to a religious principle—or superstition be it called—an

innate consciousness implanted in human nature, striking a responsive cord, and seizing at once upon the minds of the credulous of all classes. The physician's high calling—ministering to the sufferings and afflictions of mankind, where the highest, tenderest, holiest affections and sentiments are displayed, standing between life and death, between the hopes of the one and the consolations of the other—suggests itself as a hallowed calling, closely allied to that having to do with our spiritual nature, and looking from life present to life to come, from time to eternity. Medicine is by nature, and ought to be, the handmaid of Religion. This is *felt* by mankind. It forms a part of intuitional belief, which nothing can eradicate.—No wonder then that the claims and pretensions of Homœopathy on this basis should have acted like a charm.

This is a point, which in its bearings, our author appears to have overlooked, but which, while suggesting a philosophical explanation of the spread of a delusion, and the means for its overthrow, in the affections of perhaps the weak and credulous, but the upright and honest in heart, and indeed the best portion of community, suggests also a lesson of practical import, which it would be well to heed. While then the errors and hypocrisy of false systems in medicine are exposed, let the true be pervaded by the high and sacred influences of religion, or at least be characterized by a respect for religious faith and sentiment. For if medical authors and practitioners manifest a want of moral rectitude, cherish infidelity, or disregard the elevated spirit of true religion, it cannot be expected but that medical frauds and delusions, wearing the garb of sanctity, should successfully invade the hallowed ministry.

And is not the present tendency of the medical mind operating to the prejudice of the profession in this respect? Is it not to be feared that in the zeal to secure more extended practice and respectability, that elevated tone which should prevail is giving place to pecuniary considerations, and those nobler plans for concert of action, to utilitarian conventionalities—an "*esprit de corps*"—looking, to perhaps more compre-

hensive and harmonious, but still to selfish ends? Would it not even seem to be considered by some a disparagement, rather than otherwise, to be subject to any rules of ethics but those having the interests of the profession, *as a craft*, in view? thus conveying to the world the notion of a sort of systematized, "honorable" charlatanism, operating upon a grand scale!

Witness also the want of virtuous principle sometimes observed, where we might expect examples of moral excellence. We do not allude to those overt acts of turpitude and recklessness, which require peculiar circumstances to render their justification, or even palliation, tolerable, and the most extraordinary occasions and appliances to make the pretext of hostility and persecution available for enlisting sympathy, and only then where the weight of influence, and a sense of self-interest is brought to bear as adjuvants, with gracious airs and words of melting eloquence. We only speak of those more frequent obliquities observable and countenanced in those having weight of character. The love of notoriety not uncommonly leads to the display of conspicuous vices—the more startling, the better for advertisement—and such vices we sometimes see countenanced, and even turned to "capital," as inseparable from, and, *ergo*, *prima facie* proof of genius; and it is to be feared the notion that great faults bespeak great minds, may yet find favor with some as sound logic!

But granting the highest morality, and we believe as a class the medical profession may justly claim it, yet while many of its prominent lights cast their influence, and occupy a ground in opposition to the dictates and faith of the Christian religion, whose province joins, partly includes, and only stretches beyond, that of medicine, the same atmosphere, darkened with fear and sorrow, or brightened with hope and promise, pervading both, is it to be wondered, that the deserted precincts of the one, should be invaded by those professing to belong to the other—that honest-hearted fanaticism, or smooth-tongued hypocrisy, should find temporary favor in the sacred vocation of Healing the Sick?

We would not seek to incorporate Medical Science with

systems of Theology—to interpret science according to revelation, or revelation according to science. All we claim is, that the religious instincts of man's nature, as enlightened by revelation should be respected, and above all, by the medical profession. And this we are now contending for, merely on the ground of expediency. For if the legitimate cultivators of medicine desert their true position, it is easy to see that others will rush in to fill the vacuum. Neither will a hollow-hearted sanctity suffice, for the cheat will be detected and repudiated. A divine or theologian might be expected to urge higher motives, but as we have no right to trench upon ecclesiastical ground, clerical or laical, we will add only this, in the full persuasion of its truth: The teaching of revelation is the proper basis of all ethics, its religion, true philosophy; and as medical practitioners should be sound moralists, and true philosophers, they ought to be governed by the rules, and actuated by the spirit of revealed religion. Besides, the efficacy of religious ministration is not to be lost sight of as a *therapeutic agent*; for the calm and soothing influences of genuine religion, timely dispensed, may, through their salutary effects upon the mind, enable it to sustain and rally the sinking energies of the body when all other medicines fail.

Certain it is to our mind, that a want of this elevated morality and philosophy, where it is rightfully looked for, is calculated to favor a delusion so plausible and insinuating as the one under consideration, and to encourage and give foothold to any other that may succeed this, with address and pretensions equally prepossessing.

3d. As a third prime means contributing to the propagation and support of Homœopathy, it is to be remarked, that it addresses itself directly to that vulnerable principle or instinct in human nature which delights in the wonderful, the intangible, the incomprehensible, the spiritual—a principle implanted for noble purposes, and when restrained and directed by reason, leading to high conceptions and brilliant discoveries, but which without such guidance is readily carried away with the most absurd extravagancies. It is this that affords reception to the many delusions, sweeping ever and anon, like

epidemics over the world. And it is not surprising that the same principle which lately deluded itself with the mummeries, mysteries and revealments of clairvoyance, and has now become infatuated with the supernatural table-antics and developments of "spiritualism," should be ready to receive a "spiritualized" system of medication, with full faith in the unaccountable "terrific potency" of its infinitesimal nothingness.

It is this principle, and the preceding one, which, operated upon by the visionary or designing, through the credulity of the masses, have set poor humanity agog with the various vagaries and impositions that from time immemorial have afflicted the race.—And as Homœopathy was fortunate enough to address itself both to the religious and intellectual proclivities of man, it was enabled to secure a double footing in his mental constitution.

Professor Simpson well illustrates the infatuation of wonder-loving, credulous minds, in his history of the 'rise and fall' of "Ritters' Magnetoscope"—its astonishing 'behaviour,' as Chemists might say, in demonstrating with "infallible certainty," the physical properties of infinitesimal doses—an instrument constructed on the principle of the old divining rod or ring, and propelled solely, by unconscious muscular movements, so that "the state of *expectant attention* in the mind of the operator, involuntarily on his part, sets in action, as his fingers touch the ball of the Magnetoscope, muscular movements in his hand, calculated to produce the *expected* result in the instrument."

4th. The fourth means favoring Homœopathy, and the last according to our division, (for we have not followed the author's, who indeed makes none,) is apparent successes in its practice. This, however, is not a primary element, but rather a condition—not the soil in which it took root, but the refreshing showers which have kept it from withering, and "fair to look upon" Here there are two points to consider :

First. Real success. The strict attention to the comfort of patients, and the system of regimen of Homœopathic practice, is accorded to possess merit. This, with a cautious non-

interference, or entrustment of cases to the *vis medicatrix naturæ*, aided by the sort of mental hygiene instituted—the enlistment of implicit confidence, or “Medical Faith”—constitute the sheet anchor, and indeed the only merit of the system: the rest being specious representations, pretended “cures” from natural or accidental recoveries, mild cases exaggerated, &c.

Second. The apparent success in Hospital practice, so much boasted of by Homœopathists. Prof. Simpson shows by careful and elaborate comparison of the statistics of Homœopathic Hospitals, with those of other institutions, that while having as a general rule every advantage as regards comfort and character of cases, they have proved signally unsuccessful; that in the Hospitals showing a comparatively small amount of mortality, the result has been owing, to the exclusion of moribund and incurable cases, the comparative fewness of severe cases, early dismissal of such, as “cured,” when but slightly improved, in some instances re-admission having been refused when applied for, inaccuracies in nomenclature or diagnosis, and even glaring errors in the Hospital returns, evidently the result of anxiety to show a small mortality. Fleischmann’s Hospital, near Vienna, upon the success of which Homœopathists have made so much glorification, appears to have been established with a view of instituting supposititious and favorable comparisons; and the presistence of the grant maintaining it, having been made dependent upon returning a small amount of mortality, affords every inducement to obtain favorable returns. Upon the whole, the boasted success of Homœopathy, in its Hospital practice, falls to the ground, and instead of being favorable, tends to disgrace the system.—No one can read the collation, comparison and sifting of these Hospital statistics without feeling that Ichabod—the glory has departed—must be inscribed upon the tottering pillars of Homœopathy, which indeed appears to be loosing ground in its strongest holds, and falling into disrepute every where.

We have not noticed the absurdities of this system of medicine, or rather system of non-medication and humbug, and

for this must refer to the author, our object being merely to present some points, suggested by the text, by way of directing attention to the causes favoring the spread of this as well as other delusions, to the prejudice of rational medicine, which as suggestive to some extent of the means to counteract them are the objects of prime consideration.

We advise every medical man to read the book, which is not a tirade or idle declamation, but a full and conclusive detail of facts and reasoning, in a style as well calculated to amuse as to convince. There is a fine vein of humor throughout the book, giving interest and zest to the whole. The argument is spiced with wit, and the wit gives force to the argument. The Author meets the adversary without parade or flourish, but with a two-edged sword, sharpened and pointed, dealing his blows in short measure—*one, two, three*:—number one disables the enemy, number two takes off his head, number three “strikes home” before he has time to fall, and throws him over-board without the trouble of burial.

The work may be had by application to F. HAGAN, Bookseller, Market street, or TOON, NELSON & Co., Union street.

B. W.

ART. XX.—HISTORY OF THE EPIDEMIC YELLOW FEVER, at *New Orleans*, in 1853. By E. D. FENNER, M. D. pp. 84.

After a few preliminary remarks, applicable chiefly to the citizens of New Orleans, the author begins his inquiry into the origin, progress, &c., of the Epidemic, with an abstract of a meteorological Register for the city, extending from January to September inclusive. It does not appear that there was any notable departure from the average meteorological statistics of previous years. The summer was warm and rainy, though not to an unusual degree.

Sanitary condition of the City. This is represented by Dr. Fenner to have been most grossly overlooked, and from extracts from several of the daily papers, we infer that the condition of the streets, alleys, &c., had never before been as filthy.

Commencement of the Epidemic. The Epidemic made its first appearance among the crew of the ship *Augusta*, which had reached the city, *direct from Bremen*, on the 17th of May, with 230 emigrants, represented to have been exempt from any species of epidemic disease, on the passage, and in good health on their arrival, and remaining only one day, proceeded up the river. On the passage up to the city from the Balize, however, it is stated, that there was free communication between the "*Augusta*," and the "*Camboden Castle*," a British ship, direct from Kingston, Jamaica, across the tow-boat which towed the two vessels from the Balize to the city.

Memorandum of Ship "Camboden Castle." The Captain stated to Dr. F., that the ship had lost seven of her crew by Yellow Fever, at Kingston, previous to sailing; but that there had been no case of Fever on his vessel since he left Kingston, either at sea or in the port of New Orleans. The two vessels took their respective stations half a mile apart, after reaching N. O. No further communication could be ascertained to have taken place between the crews of the two vessels.

From the memoranda furnished by Dr. Schuppert, the attending physician of the "*Augusta*," it appears that the first case occurred among the crew, on the 23d of May, six days after the vessel entered the port. Of the six cases reported by S. on shipboard, two died.

Charity Hospital Cases. The first case, McGuigan, an Irishman, was admitted into the Hospital on the 27th of May—ten days subsequent to the arrival of the "*Camboden Castle*," and "*Augusta*." This patient had been sick four days; "was last from Liverpool." Dr. Fenner ascertained by careful inquiry, that McGuigan came over on the ship *Northampton*, which reached New Orleans on the 10th of May, direct from Liverpool. The Captain of the *Northampton* stated that there had been no case of Yellow Fever on board the ship

during the voyage, from Liverpool to New Orleans, though he admitted there was some sickness, and six deaths; four children from bowel disease, and two adults—one from hemorrhage of the nose, the disease in the other case not stated. On the 10th of June—one month after the vessel reached New Orleans, the first case of Yellow Fever occurred on board the ship, in the person of a boy, who recovered. This vessel left New Orleans on the 14th of June, and Dr. F. learned that several cases of Yellow Fever, occurred afterwards on board, one of which proved fatal. The "Northampton" and "Augusta" laid not more than a hundred yards apart, and from his own account, Dr. Fenner thinks, that McGuigan was attacked on the same day, that the first case occurred on the "Augusta."

Dr. Dowler's Cases. A German had lived 12 months in the city—worked in the swamp—"never went to the shipping"—was a temperate man—sickened on the 29th of May, and died on the 2d of June. His wife was attacked on the day after, (3d,) and died on the 8th day afterwards.

Yellow Fever on board Ship "Niagara." American ship—arrived on the 30th of April, direct from New York. Left for Liverpool on the 4th of June. "Had no sickness up to this time." After leaving the Balize, (outward bound,) the Captain and several of the crew died of Yellow Fever. This vessel, too, had laid in the immediate vicinity of the "Camboden Castle," "Saxon," and "Harvest Queen."

After minutely tracing all the first cases in the respective localities where they occurred,—Dr. F. remarks: "The localities designated, circumscribe *almost the entire outskirts of the city*, at the same time, *dipping pretty far in*; and it was from these different points, or their vicinities, that the disease continued to spread, though by no means with equal speed, as I shall presently show. It must be recollected that we are, as yet, only up to the first of July, when the disease was still prevailing sporadically. The epidemic was not declared until two or three weeks later." "Now if any one can trace any sort of connection or communication between the first cases of the disease, as they appeared in the different localities I

have pointed out, or any thing like the *gradual spread of an imported contagion or infection from one or more points to the region around*, I can only say, it is more than I have been able, satisfactorily to do."

It was currently reported at the time yellow fever first broke out in the city, that it had been imported from Rio Janeiro.— Upon diligent inquiry, Dr. Fenner learned that, though "nearly all the vessels that arrived here from Rio after the 1st of April, had suffered more or less from yellow fever after leaving that port, *none of them had brought cases to New Orleans.*" The Captain of the ship "Siri" had lost his wife, son, and some of his crew, before leaving Rio, *but had no sickness on the voyage, and none after arriving here.* This vessel arrived at New Orleans on the 10th of May, 13 days before the 1st case of yellow fever is reported to have occurred on board the "Augusta," and 18 days before the 1st case of *black vomit* was noticed at the Charity Hospital. A correspondent of the N. Y. Com. Advertiser, a resident of Rio Janeiro, says, "Prior to 1850, Rio was considered the most healthy tropical city in the world—no fatal epidemic having ever visited it—yellow fever and cholera were unknown." "Early in Feb. 1850, some cases of fever on board a vessel from Philadelphia, which terminated fatally, with all the signs of yellow fever." It spread rapidly on shore, during the month of April, "the total number of deaths were from one hundred and sixty to one hundred and eighty per day. Pop. of Rio about 250,000." "The same fever pervaded the whole Brazilian coast in 1850. At Bahia it was traced to a vessel from New Orleans, and believed by many to have been imported in her. With equal propriety it might have been said to have been imported into Rio from Philadelphia." Both the vessels, however, left the United States in the winter season, and neither had any sickness on board till after their arrival. "A malaria pervaded the whole coast; this was proved by several cases of fever appearing on board vessels from Europe prior to arrival." "In 1851, there were a few sporadic cases, but it never could be called epidemic on shore. The cases on ship board were more numerous, but with proper care they were not very fatal. The same

remarks apply to 1852." "The name of the vessel stated in the New Orleans print as having introduced the fever there from Rio, was the 'Adelaide.' No vessel of this name can be found as having loaded at Rio for New Orleans, or to have arrived there."

The general impression that the first cases of yellow fever in New Orleans always occur among the shipping, Dr. Fenner thinks he has shown from his previous accounts of the fever, to be unfounded, and contends "that the *shipping* has suffered much worse than the city from the contact."

The disease first prevailed as an *epidemic* "in the upper part of the city, bordering on the first and second districts, lying between Robin and Josephine streets, and extending as far from the river as Magazine street." "This region contains but *two paved streets*." "The houses are, for the most part, of an inferior order. and are occupied chiefly by the Irish and Dutch; the water-works fount, and a number of cotton-press and tobacco warehouses are in this region."

July 9.—"Reports from the cemeteries show 59 deaths from yellow fever."

July 13.—"Deaths from yellow fever at the Charity Hospital, fifteen to twenty per day."

July 15.—"Howard Association complained of for offering their services, through the public prints, to the poor and afflicted, by persons who persist in saying there is *no epidemic and will be none*."

July 17.—"Yellow fever increases rapidly. Interments for the week 204 from the epidemic."

July 18.—"The epidemic is coming into the heart of the city."

July 23.—"Interments for the week 429 from yellow fever; but few cases in the centre of the city. The epidemic reigns chiefly in the *unpaved parts all around*."

Aug.—"Interments for the week 692 from yellow fever.—123 on the 1st day of August."

Aug. 4.—"The epidemic begins to rage in the central part of the city—Canal street."

Aug. 6.—“Col. Bliss died of the fever at Pascagoula—had left New Orleans about 17 days before his attack.”

Aug. 7.—Deaths from yellow fever during the past week, 959—and 29 of other types of fevers, such as “pernicious,” “malignant,” “congestive,” “intermittent,” “typhus,” “typhoid,” &c.

Aug. 15.—Deaths from yellow fever during the past week, 1288. “At this period the epidemic rages most awfully; the public consternation and distress are indistinguishable.”

Aug. 21.—Deaths from yellow fever during the week 1302—probably 1365.

Aug. 28.—*Greatest mortality*.—Deaths by yellow fever during the week past, 1365—more probably 1442. Highest mortality during any one day, 239, (22d of Aug.)

Sept. 1.—A pleasant day—a hard shower early in the morning. The epidemic is declining rapidly; deaths about 100 per day.

Sept. 7.—Only 48 deaths from yellow fever to-day.

Sept. 17.—Deaths from yellow fever 24 a day; for the last week 221. In fact the epidemic is now over.

Oct. 8.—Mortality for the past week from yellow fever 42. Total No. of deaths since the 28th of May, 8,198.

Oct. 13.—The Board of Health announced publicly that “*there is now no epidemic in the city, and that absentees and strangers may come in with safety.*” “A few were attacked after their arrival here, but not severely, the malignancy of the fever having been greatly mitigated.”

“I stated, in my memorandum of the 17th September, that I considered the epidemic was really over then, although there was no public announcement to that effect. My opinion was based, not *alone* upon the great diminution of cases, but also upon the *change of type* that was visible in the new cases then occurring. Fevers of the *pernicious, intermittent* and *remittent* types became more common than yellow fever. In fact, the yellow fever type was gradually giving place to the remittent and intermittent, as will appear plainly in the statistics to follow. This is what always occurs, as I have completely demonstrated in my previous writings on the subject.

The number of deaths from yellow fever, for the week ending September 17th, was 221. Now, if we refer to the period when the deaths first got up to a similar amount, we shall find that it was the week terminating the 16th of July, when the deaths were 204. Thus we have *two months*

as the period during which it may be said *yellow fever prevailed as an epidemic*. This again corresponds with the observations of the past. We have more or less yellow fever in this city *every year*, but, after a constant residence here of twelve years, I must say I have never known it prevail *to an epidemical extent* for a longer period than *sixty or seventy days*.—Some persons attempt to draw a distinction between *epidemic* and *sporadic* yellow fever; but this is *sheer nonsense*. If there be such a disease as yellow fever at all, you may see as *genuine a case* of it in a season when not more than a dozen of the kind occur, as in one presenting thousands of cases.

A popular error of extensive prevalence, and long standing respecting yellow fever, is, *that an epidemic can alone be extinguished by frost*. I demonstrated this error in my histories of the epidemics of 1847 and '48, and the events of the present year fully confirm the correctness of my observations. In 1847 the epidemic ceased long before the appearance of frost; yet sporadic cases were seen to a considerable extent to the end of the year. On the present occasion, the disappearance of the epidemic was published by the Board of Health on the 13th of October, whilst the *first frost* was announced on the 25th of October, and that was only observed on the outskirts of the city. On the 31st there was a much heavier frost, but by this time a large number of persons had returned to the city. It is true that some of them were attacked with the fever, as before stated; but the cases were generally mild, and easily managed.—We shall, doubtless, continue to see scattering cases till the end of the year. The general remote cause of all the endemic fevers seen here, which, in its most virulent or powerful state, produces an epidemic of yellow fever, gradually undergoes modification in the progress of time; it becomes less virulent or powerful, and in proportion to the degree of this change it will produce the milder types of fever. This position is illustrated by the remark of a highly intelligent practitioner of the 4th District, whom I met about the 10th of October. On being asked whether he saw much yellow fever at that time, he replied that “he saw a good deal of fever, but he hardly knew whether it was *yellow fever* or not.” I asked him how the cases looked, if they became *dangerously ill or died*?—He said “they then generally looked *precisely like yellow fever*.” Another professional friend in the same District told me a short time afterwards that he had just been astonished at seeing a case of intermittent fever terminate in *fatal black vomit*. Such observations show that the prevailing *fever-cause*, which in August produced *yellow fever* in nine-tenths of the cases that occurred, had become so much weakened in October as to produce mostly the *remittent and intermittent types*; yet the relationship between them was still so close, that if the latter were not promptly cured, they ultimately presented the worst features of the former.

The disease first prevailed to an *epidemical extent* in the region bordering on the junction of the *First and Fourth Districts*, extending from the river back and around the *Water-works*, as I have more distinctly shown in the foregoing memoranda. It was shown that it also broke out in various other places quite remote from each other, and having no special or marked intercommunication. It is worthy of particular notice that the

epidemic prevailed in the unpaved, and, of course, least improved parts of the city all around, long before it did in the central and best improved parts. It is well known that the epidemic was not so bad this year on Chartres, Royal, Burgundy, Customhouse, Bienville, Conti, and St. Louis streets, as it was in 1847. Thirty years ago this region bore the chief brunt of the Epidemics. From this city, which was the starting point, the epidemic influence gradually expanded until it ultimately spread over a more extensive region around than was ever known before. Along the Mississippi river it extended from the Balize up to the mouth of the Arkansas, where the village of Napoleon was severely scourged. On Red river it went as high as Shreveport; on the Alabama river it went as high as Montgomery, the capitol of the State. On the Tombigbee, as high as Demopolis. It extended to Pensacola, in Florida; to Galveston, Houston, Indianola, Victoria and other places in Texas. It prevailed terrifically in the village of Thibodauxville on Bayou Lafourche, and also in some of the towns over in Attakapas."

The General Character of the Disease. On this point, Dr. Fenner says—"It seems to be generally conceded that the yellow fever of this year has been more malignant and unmanageable than any ever seen here before." "I am quite confident it is true as far back as 1841." "The tendency to black vomit was more rapid, and there were more cases of this than usual, at the same time there were more *recoveries* from *black vomit* than was ever known before." "I think that the *head symptoms* were unusually severe and dangerous—many died in delirium and convulsions." "I think that *suppression of urine* was much less frequently observed in dangerous cases than formerly." "Hemorrhages were exceedingly common and fatal. Many died of hemorrhage from the *nose*, gums and bowels." "Hemorrhage often indicated the approach of a *salutary crisis*." "Indeed it is *the natural crisis of this type of fever, when its course is not interrupted by art.*"

"There were various rumors afloat that this was not *genuine yellow fever*, or such as has generally prevailed here before, but something altogether different: some saying it was a *modified typhus*—others, that it was a *species of plague*, &c." "The truth is, the epidemic was nothing but an uncommonly malignant yellow fever, presenting all the characteristic symptoms of that disease as it is generally seen here, but in a more virulent degree. No two epidemics that ever occurred here were

so precisely alike, but each different from the other, and demanded some slight modifications of treatment."

Dr. Fenner believes that "yellow fever is so closely allied to various remittent and intermittent fevers, that no uniform and reliable distinction can be drawn between them in the early stages, and the only way we get at the fact that yellow fever is prevailing, is by observing the final results, whether in *death* or *convalescence*, and the former is by far the most conclusive of the two," and we would here beg leave to say, that if Dr. Fenner would employ similar reasoning in reference to his diagnosis and treatment of *typhoid fever* upon the *abortive principle*, with quinine, he would be constrained to admit that his cases of *typhoid fever* cut short by large doses of quinine, were only cases of remittent or bilious fever.

Recoveries from Black Vomit. "I consider the chance of recovery as but little better than *one in a hundred*," and this testimony seems to be corroborated by the experience of the city profession generally. Dr. Fenner mentions as a fact worthy of record, a *tendency to relapse*, which presented itself in many instances. This secondary fever was often very dangerous, in some instances resembling a *second attack*.

Second Attacks of Yellow Fever. On this point, Dr. Fenner remarks: "There can be no doubt that if a person have a plain attack of yellow fever during the prevalence of a *severe* epidemic, there will be but small probability of his ever having it again, provided he remains in the same place, yet the rule is by no means invariable." "If one has it, however, during a *mild* epidemic, or when there are only a few sporadic cases, his subsequent exemption will not be near so great. Thus there were numerous attacks this year among persons who had had other attacks since 1847, but not many among those who had it that year, or any previous *strong* epidemic." This is, we presume, substantially the "doctrine" which Dr. Fenner alludes to, as laid down in his "Report on the Fevers of New Orleans."

Attacks upon Creoles, or Natives of New Orleans. "One of the most extraordinary features of this epidemic is presented in the fact that the natives of the city, *both white and colored*,

have suffered severely, and many of them died of it." "Children who were born since '47, have suffered most; but many born previous to that time likewise suffered, and some of them died of black vomit."—"A white infant only *five weeks old* died of black vomit." "The creoles on the coast above and below the city, suffered much worse from yellow fever, than those in the city."

"*Attacks upon Negroes.*" "This epidemic affected unacclimated negroes, or those who had never had yellow fever before, equally as generally as it did the white population—though not so severely." "There is something in the negro constitution which affords him protection against the worst effects of yellow fever; but what it is I am unable to say." "During an epidemic he will take the fever almost, if not fully as readily as the white, but it will be altogether milder and less dangerous in its tendency." "The least mixture of the *white race* with the *black* seems to increase the liability of the latter to the dangers of yellow fever; and the danger is in proportion to the amount of white blood in the mixture." "Very few negroes ever die of yellow fever in this city, but I learn that a considerable number have been lost on the plantations this year."—Dr. Fenner attributes the greater mortality on the plantations, to the fact, that the physicians were not familiar with its treatment—in this opinion we are inclined to believe Dr. F. is mistaken—it is a fact which has been before noticed, that the ratio of mortality from epidemic cholera, has been greater in villages and the contiguous neighborhoods, than in large cities, and we see no reason why the same may not be true of yellow fever. Dr. F. thinks the danger to the negroes from yellow fever "to be no greater than that from *bilious fever* in the country, and *not half so great as from congestive intermittent.*"

Treatment. On this point, Dr. Fenner says:—"In New Orleans may be seen the results of every imaginable course of treatment, from *doing nothing at all*, up to the use of the most *potent remedies in heroic doses*; and cases have recovered and died under all." From Dr. Fenner's avowed confidence in the *abortive* efficacy of the Sulphate of Quinine in the treat-

ment of Typhoid Fever, we were prepared to expect that he would rely mainly on this remedy in treating Yellow Fever cases, in the first stage especially ; and we can see no reason why the theory and practice would not be as correct and judicious in the one as the other. On this head he says :

“In 1847, and ever since till the present season, I have been able *promptly to cut short* nearly all the cases of Yellow Fever I was called to treat in this city ; and there was but one year (1851,) in which there was not a good deal of it to be treated. Several other highly intelligent physicians of this city have done the same. Our chief remedies for this purpose were large doses of quinine and opium, given at the onset of the fever. In reporting my satisfactory success with this treatment, I admitted that the disease treated, although certainly *Yellow Fever*, was of rather a milder type, and that it remained to be seen whether this abortive treatment would be equally successful in a more malignant epidemic. The opportunity has been presented this year, and I now must make a candid statement of the results of my experience.

“When this epidemic broke out, I was one of the visiting physicians to the Charity Hospital, and soon had ample opportunities to test the abortive treatment by large doses of quinine and opium. It did very well in many cases where there was a *fair opportunity to apply it*, but I soon discovered that it did not display that controlling influence over this fever which it had done over all the Yellow Fever I had met with for six years previously. I then fell upon a more moderate use of the sulphate of quinine, and finally gave preference to the *Ferro-cyanuret*, in combination with blue mass, and without opium or morphine. I was pleased with the results, and pursued this course to the end of the epidemic.

“I do not recollect to have treated any case of Yellow Fever without giving quinine in some form, and am willing to compare results with any physician in the city. I still believe it to be *one of the most*, if not *the most valuable* of all our remedies in Yellow Fever—in short, that it is just as valuable in this type of fever as it is in bilious remittent. Many Physicians tell me they found the sulphate of quinine to fulfil their expectations this year as well as usual, whilst others report quite differently.

“When this epidemic broke out, the sulphate of quinine was prescribed boldly, by perhaps a large majority of the physicians of New Orleans ; but from *the injudicious use of it*, which fell under my own observation in the wards of the Charity Hospital, I soon foresaw and predicted the *disrepute* into which the remedy would inevitably be brought, if things went on in that way. My prediction was fulfilled. From the *abuse* of the remedy in the hands of many who knew not how to prescribe it judiciously, a popular prejudice rose up against it, and in the eyes of many it was brought into unmerited disgrace. But this has happened to almost every valuable remedy in the whole *Materia Medica*, and must continue to occur as long as people will rashly venture to administer powerful medicines who know little or nothing about medical science. Notwithstanding the obloquy which has been heaped upon this great and glorious remedy this year, it still

maintains the high reputation it has long held amongst those physicians who have learned to prescribe it with judgment. If people expect to discover a *sovereign remedy* for *any special disease*—one that may be pitched into the human body without discrimination or judgment, wherever that disease is found, they are woefully mistaken. The *art of prescribing* medicines is of more importance to the community than the *real virtues* of the medicines; for the former is possessed by but few, whilst the drug stores abound in valuable remedies.

“From all I have heard and seen, I am sure that no one can boast this year of the *extraordinary* success of his treatment, whether he used quinine or not, *calomel* or not, large quantities of medicine or *none at all*. Yet I would by no means wish to convey the idea that the success of the experienced physicians of New Orleans has not been highly commendable this year, considering the virulence and malignancy of the epidemic, and the numerous difficulties in the way of bad nursing, &c., they had to contend with. For myself, I will state conscientiously, that I lost less than nine per cent. of my cases in private practice to which I was called in *good time*, and had a *reasonably fair chance to treat*; and about 16 per cent. of the whole. I doubt not that many physicians met with equal, if not superior success, and under all the circumstances, I do not think it should be considered discreditable. If the same success had been attained by all the physicians of the city, our population would not have been *decimated* as it has been by this dreadful pestilence.

“This is all I shall say at this time in respect to the treatment of Yellow Fever. I shall enlarge upon it at another time, but could not omit this occasion to say something in defence of a great remedy, which has been much abused and calumniated. There are men in all professions and pursuits who are ever ready to chime in with popular prejudice, and always trim their sails to suit the current of public opinion, without regard to the principles of truth and science.

“There even be some who have such unbounded confidence in the *inherent and unerring wisdom* of the *People en masse*, as to maintain that they never fail to arrive at the most rational and correct conclusions upon all great questions, whether of Law, Politics, Religion, Science or Philosophy. If such persons would only look into the history of *popular delusions and errors* in regard to Medicine, and all that relates to the origin, spread and treatment of disease, they would surely abandon this eutopian idea. If the time ever come, which some predict, that the *People* shall take upon themselves to determine whether *quinine* or *any other medicine* shall be given in Yellow Fever or not, I cannot doubt that the results will be extremely unfortunate. The people may select their doctors, but they are compelled to intrust their lives to them when employed.”

Fever Statistics.—Under this head, Dr. F. remarks: “From these *mortuary* statistics, it will be seen that, during the reign of the *great epidemic*, which slew its thousands, people likewise died of *all sorts of fever*—intermittent, remittent, continued, typhoid, congestive.”

The mortality at the Charity Hospital, for the four months, is set down at $57\frac{1}{2}$ per cent. But, as Dr. Fenner justly remarks, "this rate of mortality is by no means discreditable, considering the malignancy of the epidemic, and the late stages in which a majority of the cases were admitted."

In reviewing the prominent facts presented in the history of the epidemic, the author says :

"1. We have shown that when this pestilence broke out, the condition of the city in respect to *cleanliness* was so bad as to be an object of *public notoriety*. Indeed it was in such a state, that if it had given rise to Egyptian Plague instead of Yellow Fever, it should not have surprised any one. The only surprising thing is, that with so much filth of all kinds as is always to be found in this city, we do not have an Epidemic every year. The fact that *we do not*, has even led to the public expression of the strange opinion that the public filth of the city instead of *originating* Yellow Fever, absolutely protects us from it in no small degree.

"2. We have shown that Yellow Fever appeared much earlier this year than usual, and that the *first cases* occurred in persons who had been in the city but a few days, in one instance six days, and in another thirteen. These were unacclimated persons, who had just arrived from Europe, and came over in vessels direct from Liverpool, and Bremen, without stopping at any place where Yellow Fever was prevailing.

"3. We have shown that no vessel that arrived here from any *infected* port, whether in South America or the West Indies, brought any cases of Yellow Fever, had any on them whilst they were here, or gave rise to any cases previous to those which must have originated in this city.

"4. That within a very few days after the occurrence of the first cases, others were seen in different and remote places, having no sort of connection or intercommunication that we were able to trace after a careful inquiry. That shortly afterwards other cases occurred in still more remote and separate localities, under like circumstances.

"5. We have shown that the disease was the same that prevails here to a greater or less extent every year, differing only in the extraordinary degree of its malignancy.

"6. We have shown that all the varieties of endemic fever which prevail throughout the southern country were seen here in the midst of the Epidemic Yellow Fever, and they were seen to interchange types just as is observed among the fevers of the country.

"From these facts I am led to the inevitable conclusion, that the disease we have been considering originated from local causes existing in this city, aided by an extraordinary constitution or condition of the atmosphere at the time."

Dr. Fenner is positive that the epidemic *broke out first* in N. Orleans;—he believes that the extremely filthy condition of the streets and alleys, aided by a "peculiar constitution of

the atmosphere," generated the yellow fever poison—from the fact, "*that Yellow Fever always breaks out and rages worst in the unpaved and least improved parts of the city, whilst the well paved and best built portions generally suffer least from it.*"

The "*peculiar constitution*" of the atmosphere, which Dr. F. believes was the chief element in originating the epidemic, "extended to a greater circumference than was ever known before in this region." "The range of this Yellow Fever atmosphere, although so wide, was as well defined as the narrow locality in the city of Philadelphia, in which the disease originated and was confined last summer."

Dr. Fenner denies that the fever is either contagious or infectious, but is willing to admit, that "it may some times display contagious or infectious properties to a limited extent," but has "*never seen* an instance of the kind," and refers to the eleven cases of Yellow Fever, upon the authority of Dr. Jewell, of Philadelphia, treated in the Blockley and Pennsylvania Hospitals, where the disease was not communicated in a single instance, though promiscuously mixed with the other patients. It is a little remarkable that the committee of the common council of Charleston, S. C. "on Yellow Fever, its origin, &c.," quote from the same paper of Dr. Jewell's, to prove the contagious or infectious nature of the disease, introduced into a district of Philadelphia, "from the barque 'Mandarin,' from Cienfuegos, Cuba, and its subsequent extension by persons who visited the vessel or places where the disease prevailed." On this point the Charleston Committee say:

"The recent introduction of the yellow fever into a part of Philadelphia by the barque Mandarin, from Cienfuegos, is a fact too well authenticated to be disproved. The extension of the disease from New Orleans along the course of the Mississippi tells a tale for itself, and if the Commission in New Orleans should succeed in proving its domestic origin in that city, it will not be able to deny its extension to other neighboring parts by transmission or other transportation.

"To assert the domestic origin of yellow fever in Charleston, requires as much positive information as to assert its foreign origin; yet we have never been favored with the exposition of the facts. We have had denials on the other side, that 'the transmission of the fever is neither tenable as a fact, nor in accordance with the opinions of a great majority of the medical profession in this country, and that it has its origin not from contagion derivable from cases imported, but from local and general

causes.' From what observations, or from what facts these results were drawn, we are yet to learn; and we rejoice to believe that we never will, for the medical society has abandoned the conclusions.

"The absence of the fever from our city last summer is still a matter of general astonishment to all observers. Why should New Orleans be depopulated, and Charleston preserve its health? It is a point which has not escaped the examination of your Committee. All local and general causes remain the same, but the most minute inquiry cannot discover the introduction of a case from abroad. No drunken sailor brought the germ of disease to infect our atmosphere. No unclean vessel lay at our wharves to be visited by a foreign seagar merchant, to inhale the disease and return to his shop to sicken and to die. No infected ship sent her crew to the Marine Hospital—in fact, excepting the cases already referred to as sent to the Lazaretto, the fever did not enter our city; and to this cause, probably, we are indebted for the preservation of the health of the city. These negative facts become more prominent and valuable, when contrasted with others of a more positive nature. The investigation of cases introduced into our city in previous years, is not so easy as some may imagine. The impression of domestic origin was formerly so prevalent that no one attempted to trace the origin of any first case; hence we have only fragments of knowledge, collected with some labor, and reminiscences of what, 'Now you speak of it, I remember.' It is a lamentable fact that, notwithstanding the pertinacity with which the older medical men adhered to the belief of its domestic origin in each year, they have left no proof that such was its origin, nor have they given any proofs that it was not imported. This remains yet to be done."

Again :

"3. Your committee are constrained to aver that the introduction of the yellow fever by vessels from foreign ports is by far the most frequent cause and the best established origin of the epidemic in our city, and it affords your committee great satisfaction to have collected so many facts, in support of this opinion, as it places within the power of the city authorities the means of successfully contending against its introduction. So long as the enemy entered secretly into our camp, we were unprepared for resistance; but now, as we have learned his mode and manner of attack, he is disarmed of half his terrors. Our city is our castle, and we will close our doors, both front and back, external and internal, and bid defiance to our former enemy. Our strategy is self-defence, our base of operations the Charleston bar, and our prison the quarantine ground. On this frontier we will wage the war, and leave our citizens to pursue their vocations in security, unalarmed by any other cause save the apprehension of neglect of duty in our officers and soldiers. Fortunately the State has given full powers to the city to execute the quarantine laws, and they are sufficiently comprehensive to embrace all the necessary details when directed to be rigidly enforced. That direction for rigid enforcement, we hope, will now be given, and the unanimous sentiment of the Medical Society, will no longer give their opinion to the Government, that the rigid enforcement of the quarantine laws is by no means necessary on account

of yellow fever. It is proved, on trial, to be necessary elsewhere, and we have every reason to believe that it will be equally salutary here, as the neglect of it has been accompanied with so many disasters for so many years, that its rigid enforcement promises relief, rather than an aggravation of evil."

"We desire to accomplish no more for Charleston than what the Legislature of the State of New York has done for the city of New York. We desire to imitate her example, to profit by her experience, and be rewarded by the same happy results. For, 'let it be remembered,' says Vaché, (State Commissioner of Health to the Marine Hospital, Staten Island,) 'that the malady has not appeared in this city for nearly a quarter of a century, and not since the present health laws have been rigidly enforced, and never will as long as the statute remains as it is, and its provisions are observed to the letter.' Here we have the fruits of the difference of opinion between Drs. Rush and Hosack. So long as Rush prevailed, and domestic origin was advocated, the fever continued its annual ravages. When Hosack prevailed, and foreign importation was admitted, ways and means were found to stay the pestilence, and nature seemed to yield to a correct public opinion. Let public opinion change in Charleston, and ways and means will also be found to stay our pestilence. We have been taught how it may be done; we have only to put those principles into practice, and the scourge of Charleston will be as a thing that was."

And it is worthy of note, that whilst the committee of the "Charleston Council" engaged in investigating the origin, &c., of the same epidemic, are felicitating themselves almost into an ecstasy, that the Fever may be effectually shut out from the city of Charleston, in all coming time, by an *efficient quarantine*, the Legislature of Louisiana, acting, doubtless, upon the suggestions of Dr. Fenner, have, through a joint committee of both Houses, reported that they are "opposed to a *quarantine*, on the ground that the cause or specific poison which produces most of the epidemics to which we are subject, exists in and is propagated by the atmosphere."

The editors of the "Medical Examiner," referring to the origin of the Yellow Fever, as it prevailed in Philadelphia, admit "that no yellow or malignant Fever, or any epidemic, pervaded our city prior to the arrival of the barque 'Mandarin.' This unfortunate vessel arrived here, all well, from Cienfuegos, Cuba, after a passage of 17 days, on the 13th day of July last, and hauled to at a wharf between Lombard and South streets. Six days after, the first outbreak of fever of a malignant type shewed itself in that immediate vicinity. From *this point* it spread itself, in about one month, over the

district above named." All the cases reported, from the 19th of July to the 20th of August, with the exception of one (the 21st case,) were "*clearly and distinctly traced* as having their origin either by a residence in or a direct communication with the infected district." The 21st case, a drayman, "was engaged daily in hauling goods along the eastern front of the city, and may, perchance, have been within the range of infection." "Since the above was in type, a few more cases have occurred, all of which, with a few exceptions, may be traced to *that section* of the city where the disease *first* made its appearance."

Mr. Albert T. Hawley, an intelligent gentleman, residing at Shreveport, La., during the prevalence of the epidemic, states in his letter to us, that the first case of Yellow Fever occurred in a patient who "was employed in a commission house in Shreveport, and but a day or two before his attack, partly unpacked a crate of earthenware from New Orleans, handling the straw, &c., in which the ware was packed. This crate was then set aside for some two weeks or more, when a partner of the house, just returned from Texas, recommenced the task of unpacking it. He, too, sickened and died of Yellow Fever and Black Vomit." Such facts as the above certainly *prove*, in these instances at least, that the poison or infection was imported. Whether Yellow Fever would not have visited Shreveport, had the crate of earthenware not been unpacked, and whether it would not have prevailed in Philadelphia, had the "Mandarin" never left Cienfuegos, we are not prepared to answer. It may be, as Dr. Fenner contends, that the Yellow Fever of '53 *originated* in the city and suburbs of N. Orleans; but it may be equally true, that it was *imported* into Shreveport and other points along the river from this point—its severity being proportioned to the intensity of the *local causes* existing at the several points of visitation. The "Camboden Castle," according to the captain's account, had laid in the port of Kingston, 6 or 8 weeks, while Yellow Fever was prevailing extensively among the shipping. The vessel lost 7 of her crew before leaving Kingston. There had been "no case of fever on his vessel since he left Kingston, either

at sea or since he has been here." But does this prove infallibly that the infection was not brought into New Orleans by this vessel? It is stated that the "Camboden Castle" and "Augusta" were towed up from the Balize by the same tow-boat, and that there was free communication between the crews of the two vessels across the tow-boat. Granting that the crew of the "C. Castle" were all *acclimated*—and the captain was not certain but that the 7 new sailors *were* acclimated—the same could not be said of the crew of the "Augusta," who mixed freely with the crew of the "Camboden Castle," and were consequently more liable to be affected by the poison which might be lurking in some part of the vessel. The fact that the captain of the "Camboden Castle" had had his vessel thoroughly cleansed and well sprinkled with chloride of lime, might have exempted his own acclimated crew from fever during the passage, but was no guaranty that the unacclimated crew of the "Augusta" might not be attacked with the fever; and the fact that the very first case of Yellow Fever that we have any account of, occurred on board the "Augusta," is at least presumptive evidence that this may have been the case.

Dr. Fenner was evidently prepossessed with a prejudice against the theory of the contagious or infectious nature of Yellow Fever, and he was careful to ascertain as far as possible all the facts and circumstances which seemed to sustain his views. He believes that a *mild* grade of Yellow Fever prevails *sporadically* in New Orleans every summer, and very naturally concludes, from the fact that the cases which occurred sporadically in the *unpaved* suburbs of the city, previous to the disease assuming an epidemic character, at points, too, remote from the shipping, that, as he was unable to trace any connection between those cases and the crews of the "Augusta," "C. Castle," &c., the epidemic must have originated from the intense operation of the ordinary endemic agencies. But it is very natural to suppose that the filthy, unpaved precincts of the city, where the lower class of the foreign population reside, would be the very points that individuals from the crews of these vessels would be likely to visit, and vice versa;

and it was impossible to ascertain with certainty what promenades these persons may have made between the several points: and could it even have been satisfactorily proven, that there had been no intercourse or communication whatever, the fact would only be a negative one. The positive fact that the first case of Yellow Fever, as admitted by Dr. Fenner, occurred on board of a vessel recently arrived, is worth a thousand negative ones. Besides, what do the wisest know about the mysterious operation of the *agent* which produces Yellow Fever, or any other malignant epidemic? what are its laws and the modes of diffusion and propagation? what quantity of the poison is necessary to leaven the atmosphere of a city? Who can estimate the rapidity with which it may spread when introduced into an atmosphere congenial to its development and propagation?

But we did not set out with the intention to controvert this point; neither has it been our purpose to give a "Review" of the work, but rather to condense into as small a space as possible, without seeming to do injustice to the distinguished author, all the interesting facts and strong points in the history of the dreadful epidemic which he has so ably investigated.

J. W. K.

ITEMS OF INTELLIGENCE, &c.

We see from the March No. of the New Orleans Medical and Surgical Journal that Bennet Dowler, M. D., so favorably known for his writings and his physiological researches, has become editor of that sterling periodical. In his introductory we find the following:

"The science of Medicine, affiliated as it is with many collateral sciences, affords ample scope to its cultivators without the necessity of descending to attack quacks, cliques, and mercenary practitioners who sacrifice truth, honesty and science, without scruple, for the love of money, or a love of that species of notoriety which is ephemeral even for its purpose but lasting for its moral degradation."

Such sentiments become the dignity of the medical press and confer dignity upon it. Let them be acted upon.

The Stethoscope, or Virginia Medical Gazette, purchased by the Medical Society of Virginia, is now edited by a corps from that body consisting of Drs. Thos. P. Atkinson, R. W. Haxall, James Bolton, Richmond A. Lewis, A. T. B. Merritt, J. G. Cabal. * * * * The Journal, under this arrangement, with harmony and singleness of purpose, ought to succeed honorably to the Society and the profession. Dr. Gooch remarks of it in his Valedictory:—"It is no longer the work of one man—it is no longer subject to the absolute tone of one mind—but it is now the common property and mouthpiece of the profession of medicine in Virginia. Let each one, then, give it his own 'material aid.'"

If to each editor were assigned some specific department, as proposed by Dr. Otis, of the Virginia Medical and Surgical Journal, it had been still better.

MEDICAL MAYORALTIES.—Dr. J. V. C. Smith, of the Boston Medical and Surgical Journal, has been elected Mayor of the city of Boston, and Dr. Wolfred Nelson, editor of the Bibliographical Department of Nelson's American Lancet, has become Mayor of the city of Montreal.

Dr. Geo. S. Jones is now associated with Dr. Smith in editing the Boston Medical and Surgical Journal.

Dr. Mott who has been so much assailed on the score of recommending quack medicines, has written the following letter to the editor of the Ohio Medical and Surgical Journal in reply to one of these accusations:

"Sir, will you be so kind as to correct a misstatement in the November number of the Ohio Medical and Surgical Journal, of which you are editor.—I never recommended Dr. Hartly as an oculist or aurist. If he refers to me, therefore, it is wholly unauthorized. In various directions of our country, I find myself set forth in connection with pills, powders and balsams, which I know as much of as I do of Dr. Hartly as an oculist."

MEDICAL COLLEGE OF VIRGINIA.—The General Assembly, says the Virginia Medical and Surgical Journal, has at last incorporated a "Medical College of Virginia," governed by a board of nineteen visitors from different parts of the State,—the corporation being "endowed with the property heretofore used for the purposes of the Medical School in Richmond, and with full powers over the faculty to be appointed hereafter."—"The Medical department of the University of Virginia," adds the Journal, "with its long session of nine months, its careful method of teaching, and the opportunities which it affords the student for remedying the defects in preliminary education, is justly regarded as the best preparatory medical school in the country. We have now the organization of a College in the metropolis, not in the hands of private parties, or controlled by a Richmond junto, but governed by men from all parts of the State, whereat the student may complete his medical curriculum."

Dr. A. B. Castle, a dentist of New York, succeeded in removing a ring from a lady's finger, after other efforts had been unavailing, by applying metallic mercury to its surface, having polished it with powdered chalk, after which the ring was broken by slight pressure and removed.


EDITORIAL NOTICES.

The "Record" department, or review of *articles*, is omitted in the present issue to give place to a more extended "Review" of books than has been heretofore given in the Journal.

The likeness of Dr. Scruggs, which we hoped to procure for this number, must be deferred for the next. Meanwhile, we would be pleased to receive any communication relating to his history or any facts connected with it, however isolated, that might be of interest in a biographical sketch.

A very interesting report of a "Singular Case in Parturition" has just reached us from Dr. Thompson, of Mo., which will appear in our next. We should be glad to hear often from the author.

We hope our correspondents or any member of the profession having cases of interest will be prompt to report them for the Journal. We have space enough for all such, and would like to see every page occupied with original articles from correspondents. Let your light shine, gentlemen.

 It will be remembered that our terms are *always in advance*. To all therefore we say PAY—at once—take the post master's certificate and remit at our risk. If any would plead exemption on account of prompt payment for last year, or any other cause, you are just the man, in particular, whose two dollars we want, *now*.

TO PHYSICIANS OF THE SOUTH AND SOUTH-WEST.

The undersigned has in preparation a work on the Fevers, the diseases of the Digestive, and of the Respiratory systems—Acute and Chronic—which prevail in the South and South-West, with a view, in part, to examining their connection with each other, in etiology and pathology, and the influences which they exert in modifying the characters, special and general, of one another, &c., &c.

In connection with this matter, I desire to procure as much correct information as possible concerning the *Epidemic Dysentery*, which has prevailed so extensively and severely in many parts of the country during the last few years. I wish to know the circumstances attending its production or occurrence, its relation to other diseases, which may have exercised an influence upon its character,—what form, or type of disease usually prevails in the locality of its occurrence,—what were the peculiar or special symptoms, or exhibitions which gave it identity of character, and distinguished it from the ordinary endemic, or inflammatory Dysentery, and in short any thing of interest concerning it.

Physicians who have had opportunities of observing the disease and studying its character, will confer a special favor by communicating the re-

sults of their observations to me. My address until the 15th of September, will be "Red Sulphur Springs," Hardin County, Tennessee; after that date "Lowndesboro', Ala."

H. V. WOOTEN, M. D.

We commend the above notice of Prof. Wooten to the attention of the profession. If it is desirable that we should build up a Southern Medical Literature, those who are willing to work should have the hearty encouragement and co-operation of their professional brethren.

A Treatise on the Diseases of the Eye. By W. LAWRENCE, F. R. S. etc.,*
A new edition. By ISAAC HAYS, M. D., etc. 8vo. pp. 948. Philadelphia: Blanchard and Lea.

A new edition of this comprehensive Treatise being called for, and the author declining to revise it, the learned and indefatigable editor, Dr. Hays, has added copiously, in the form of notes, &c., from the results of recent researches and modes of practice, so as to make the work truly represent the present state of Ophthalmic Medicine.

Some of the additions are: "a full account of the recent microscopical investigations into the structure and pathology of the eye; the description of several affections not treated of in the original; an account of the catoptric examination of the eye, and of its employment as a means of diagnosis; a description of recently invented instruments for illuminating the retina, and of some new methods of examining the interior structures of the eye," &c., (some of which may be referred to more in full hereafter.) Also the results of the American editor's extensive experience in treating diseases of the organ.

With these additions the work may be regarded as the most thorough and reliable Treatise on Ophthalmic pathology and practice at present afforded to the profession. It is illustrated with two hundred and forty-three wood cuts, and is gotten up in Messrs. Blanchard and Leas' uniformly neat and durable style of publication.

For sale by W. T. BERRY & Co.

B. W.

Regnault's Elements of Chemistry.

Absence from the city has prevented us from preparing for this No. an extended notice of one of the most valuable works on Chemistry we have

*The titles of honor and other superfluities on the title page of books, as published in the bibliographical notices of our journals, would of themselves constitute a respectable sized volume during a year. For our individual self we are disposed to abandon the "fashion." In the above instance, at least, the omission will be no loss, as both author and editor are sufficiently known without the necessity of long addenda to their names.

ever had the pleasure of examining. We allude to the American edition of Regnault's Elements of Chemistry, edited by Booth and Faber, and published by Clark & Hesser. We received it just as we were starting out on a geological excursion, and throwing one of the volumes into our satchel, as a companion, for examination during our moments of rest, we had opportunity for reading it leisurely and quietly. It is full of matter of interest, not only to the scientific Chemist, but is a valuable companion to the miner and manufacturer. The application of the sciences to the arts is fully set forth in every particular.

R. O. C.

Pneumonia: Its supposed connection, Pathological and Etiological, with Autumnal Fevers; including an Inquiry into the Existence and Morbid Agency of Malaria. By R. LA ROCHE, M. D., Member, etc. Philadelphia: Blanchard and Lea. 1854. pp. 502.

From the slight examination we have been able to give this work, we are favorably impressed with its value. The circumstances under which the matter was prepared, and the amount of thought and valuable experience which the author has evidently brought to bear upon the subject of which he treats, is a high recommendation and commends the book to the favorable consideration of the profession. At a more convenient season, we hope to be able to give the book a close perusal, when we will be prepared to speak more confidently of its merits.

J. W. K.

The Transactions of The American Medical Association; instituted 1847. Vol. VI. Philadelphia: Printed for the Association by T. K. & P. G. Collins. 1853.

This very valuable volume was received just as we were making up the last form of this No. of the Journal. From the glance we have been enabled to give it, we pronounce it unhesitatingly the most valuable of the volumes yet issued. Several of the reports are illustrated with engravings in the handsomest style of the art. A further notice in our next.

R. O. C.

A Report on the Health and Mortality of the City of Memphis, for the year 1853. By CHARLES T. QUINTARD, A. M., M. D. Published by order of the City Council.

The worth and importance of this report was manifested in the action upon it by the city council. It was read before the Memphis Medical Society, but before the Society could take any action in the publication of it, the board of Mayor and Aldermen requested a copy for that purpose. A deserved compliment to its talented author.

R. O. C.

Crystal Gold for Filling Teeth. By J. TAFT, Xenia, Ohio.

This is a brief essay (republished from the *Dental Register* for January, 1854,) setting forth the advantages of gold in the crystalline form, the mode of using it, and the instruments necessary. Although a manufacturer of the article which he here presents to notice, the author speaks of it in a manner plain and unpretending, evincing sincerity and candor, and not with that auctioneer flourish of trumpets so frequent in heralding "new discoveries" in dentistry to the world.

The article called "sponge gold," introduced to the profession about three years ago, and experimented with to some extent, but with unsatisfactory results, differs from the present. The difference, says Dr. T., "is simply this: that the crystal gold is composed of elongated crystals of annealed gold, which forms a tenacious mass, not disposed to break to pieces: the sponge gold is not crystallized at all, but is gold in a state of minute granulation, possessing but feeble cohesive properties."

Although its preparation may not be at once brought to perfection, yet we are disposed to believe that the "crystal gold" will yet prove to be all that is claimed for it in the above essay. We have tried the article as prepared by Messrs. White of Utica, New York, (received from Messrs. J. M. Brown & Co., Cincinnati,)—applying it with a burr-pointed instrument—and are much gratified with the results. It deserves a place in the "Materia Medica" of the dentist.

B. W.

 PUBLICATIONS RECEIVED SINCE OUR LAST.

A Report on the Health and Mortality of the City of Memphis for the year 1853. By C. T. QUINTARD, M. D.

Pneumonia: Its supposed connection, Pathological and Etiological, with Autumnal Fevers. By R. LA ROCHE, M. D., Philadelphia: Blanchard & Lea. 1854. [From the Publishers through W. T. Berry & Co.]

First Annual Report of the Surgeons of the New York Ophthalmic Hospital for the year 1853.

[Presents a favorable aspect of this young institution, together with a flattering list of cases treated. Nine hundred patients received attendance during the year 1853, the total number since its organization being 1274. It is designed to render this institution "not only a hospital for the afflicted and destitute but an Ophthalmic School." We wish the enterprising Surgeons, Drs. Stephenson and Garrish, every success.]

"American Dental Patents." A vindication of Articles [on the subject] in the *American Journal Dental Science*, and a Refutation of charges made against them by the "*Dental Register*." By GEO. W. KENDALL, DENTIST, Cincinnati, Ohio.

[The author writes with spirit and vigor. His previous articles have thrown much light upon the subject of patents in dentistry, the system of

which he condemns in toto, and his "Vindication" if not as instructive is not any the less "readable." We may revert to the subject of professional "patents" at a future time.]

Homœopathy: Its Tenets and Tendencies, Theoretical, Theological and Therapeutical. By J. Y. SIMPSON, M. D. First American from the third Edinburgh Edition. Philadelphia: Lindsay and Blakiston. 1854. [From the Publishers through F. Hagan, and Toon, Nelson & Co.]

History of the Epidemic Yellow Fever at New Orleans, La., in 1853. By E. D. FENNER, M. D.

First Annual Report of the General Assembly of Ky., relating to the Registry and Returns of Births, Marriages and Deaths, from Jan. 1st. 1852, to Dec. 31st. 1853.

[This document is missing from our file, but a cursory glance satisfied us of its statistical value. Dr. Sutton deserves the thanks of the profession for the great zeal and unwearied industry displayed on his part towards the promotion of medical science. It is to be wished there were more working men like himself.]

Address to the Graduates of the Kentucky School of Medicine: Session 1853-4. By R. J. BRECKENRIDGE, Prof. of Materia Medica and Clinical Medicine.

[It is an earnest and enthusiastic vindication of the claims of Medicine, as a Science and an Art—as a Science, the most comprehensive of all sciences—as an Art, imperfect it may be, but yet fraught with incalculable benefit to mankind, ever honorable, and affording ample field for the most aspiring of its votaries.]

Eleventh Annual Report of the Managers of the State Lunatic Asylum of the State of New York. Transmitted to the Legislature Feb. 8, 1854.

The Transactions of the American Medical Association: Instituted 1847. Vol. 6. pp. 869. Philadelphia: Printed for the Association by T. K. & P. G. Collins. 1853.

Bronchitis and Kindred Diseases. By W. W. HALL. Eighth edition. pp. 382. New York: Redfield. 1854.

Homœopathy Fairly Represented: A Reply to Professor Simpson's "Homœopathy" Misrepresented. By WM. HENDERSON, M. D., Professor of General Pathology in the University of Edinburgh. First American from the last Edinburgh edition. pp. 302. Philadelphia: Lindsay & Blakiston. 1854. [From the publishers through F. Hagan.]

Essay on the Mechanism and Management of Parturition in the Shoulder Presentation. By WM. M. BOLING, M. D., of Montgomery, Ala. pp. 91. 1854.

[An elaborate and ably written essay which, together with some of the preceding works, will be examined in our next.]

We are also in receipt of our usual exchanges, forty-four in all, the list of which is crowded out.

THE
SOUTHERN JOURNAL
OF THE
MEDICAL AND PHYSICAL SCIENCES.
JULY, 1854.

ORIGINAL ARTICLES.

ART. XXI.—MUSCULAR CONTRACTION: ITS RATIONALE.

By T. M. JACKS, M. D., OF HELENA, ARK.

DRS. EDITORS OF THE SOUTHERN JOURNAL OF THE MEDICAL AND
PHYSICAL SCIENCES:—

I have been for some time thinking of troubling you with a communication upon a physiologico-philosophical problem. The heading of this article has already notified you as to what is my subject. Every physiologist of note is willing to admit, that muscular contraction is an interesting theme for philosophic speculation. Nevertheless, so far as my own reading extends, there has not been, in modern times, even an attempted elucidation of this complex phenomenon. That muscles may and do contract, we all know; but *how* or *why* do they contract? are questions which medical philosophers have seldom even dared to propound. I propose to break this charm—fearlessly to cross this physiological Rubicon. As to the success of my adventure, I shall leave that for others to decide.

Before enquiring after the cause of motion in the animal body, it may be well to seek its source, as we find it displayed in lifeless masses. If we could make an accurate survey of

every portion of God's universe, we should find movement of some kind a constant attribute of matter. From the minutest atom to the largest sphere, a state of perfect rest is nowhere to be found. Indeed, under the present constitution of things, an instant's repose is an impossibility. Nature at rest would be nature dead! Motion being thus constant and universal, the question comes up, *To what is motion due?* Is it a real entity—*res per se*? or is it a mere property of matter, dependent upon ulterior causes? We know nothing of it, save in its relationships with matter; our senses could perceive it in no other condition;—indeed, our imaginations can not conceive of its possible existence totally isolated from matter. To us, therefore, it is not, in the present inquiry, a subject of great interest, whether or not it is possible in nature for motion to be wholly disjoined from matter. Since it is only *known* to us in its material relations, we may, for the present, pursue our investigations, assuming *that it is only a property of matter*. But, supposing it thus always relative, we may, without impropriety, enquire, *upon what does it depend?* or, in plain language, *what forces impart to material masses their motility?* The assumption that there can be no such thing as motion *per se*, necessarily implies the existence of *force* prior to the commencement of motion. Perhaps it would not be amiss, here, to enquire, what and whence are the *forces* which give to the various bodies of the material universe their ceaseless motions? *Motion without force can not be; but what are the forces of nature?* Physicists acknowledge but two primitive *forces*—ATTRACTION and REPULSION. Modifications of these forces are expressed by a variety of terms. Of Attraction we have gravitation, cohesion, adhesion, affinity, &c.; while of Repulsion we have expansion by heat, elasticity, &c. *Are these forces real? or are they mere properties of matter, dependent upon certain relative conditions?* To prosecute this last inquiry thoroughly, would require us to enter into a train of reasoning which I now wish to avoid. These forces may be real, or they may be only conditional. Often, indeed, can we trace their developments to certain relationships of matter: but, if it were certain that they are always *conditional*, since they are traceable to previously existing chemical and physical ar-

rangements, which are irrelevant to our present subject, we may, for the time being, assume that they are *real*, and here speak of them as such, though our honest convictions may be different.


To a combination of these forces we can trace all the movements which we find in connection with inanimate matter. A *balance of power* between attraction and repulsion, added to a previously acquired momentum, which momentum has been due to the *want of the said balance*, will cause circular motion. Either of these forces, acting alone, will produce rectilinear motion. To affinity and to electric attraction and repulsion, we may trace all molecular actions. But, suppose it reduced to a positive certainty, that motion, as displayed by inanimate objects, is at all times dependent, conditional or relative, *is it so in living bodies? Does life imply the efficiency of no special forces in its manifestations?* That the production of motion is equally conditional here, is admitted by most physiologists; but they are generally unwilling to acknowledge the whole truth. Motion, *without a pre-existing force*, can no more take place in the animal body than it can in a block of granite. *But is this force the same in both cases?*

Here I beg leave to depart from the beaten track in physiology. It is generally believed that animal motions are due to an indescribable and incomprehensible *vital force*, which force is said to have its habitat in the living body. Whence it cometh at the time of the creation of that body, or whither it goeth at its dissolution, is in these days, say they, too metaphysical for investigation.

That there is any such thing in nature as a special *vital force*, I deny; and I hold myself prepared and ready to sustain my position at any time that its truth may be questioned. I have no room for it here. If, then, all motions in the inanimate world are due to attractions or repulsions, or to both, and if the movements of the living body are also due to these same forces, mutually combined or modified, as the case may be, it is not improper to enquire, *how are these forces brought to bear upon the animal body when they result in that most wonderful phenomenon, muscular contraction, with all its accompanying movements?*

If we examine into the ultimate structure of muscular fibre, we find it composed of great numbers of fibrillæ. Each of these said fibrillæ is made up of a series of bead-like granules, arranged in a linear direction. To each fasciculus of muscular fibres there goes from the nervous centres a twig of nerve; this twig subdivides again and again, until we may suppose a small thread of it sent to each muscular fibre. The termination of this nervous thread has not been seen, but it has been traced until it was seen to assume a *spiral* course.

The *modus operandi* of muscular contraction must be, that *these muscular granules approach one another*. This is almost self-evident. It is true, that the microscopist has not been able to trace the process; but we can not, for one moment, suppose that the force which causes the two extremities of a muscle to approach each other, is located in its cartilaginous ends; nor is it presumable that the two ends of a granule would be brought nearer to each other, causing it to bulge out in the middle. But as there are *unoccupied spaces* between these granules as they are arranged in the muscular fibril, it is reasonable to suppose, that the *contiguous ends of the different granules approach each other*; and by all the granules in a fibre thus moving at the same time, the fibre is shortened: and let this action be general in all the fibres of a muscle, and the result will be, that the distant ends of the said muscle are brought nearer together. THIS IS CONTRACTION. *But whence is the force which causes these granules to approximate?* That certain of the nervous cords are the conductors from the nervous centres of the nervous fluid—which fluid is nothing more nor less than electricity—[this I need not now argue, but it can be proved,] is known to all physiologists. That a body becoming *electric* has at the same time its component particles rendered *magnetic*, is a truth well known to natural philosophers. For illustration, we will take the prime conductor of the common electrifying machine. By a few turns of the cylinder, we render the surface of the prime conductor positively electric. Now, it is universally admitted, that at the same depth inwards from the surface there is a part of the conductor which is as highly *negative* as the surface is *positive*. This fact can only be explained by supposing that the body of the

conductor is made up of an infinite number of small particles, which particles are capable of being independently *electrified*. The positive poles of all these particles point outwards, while all their negative poles point inwards. We may suppose that this polarity is developed in the ultimate constituents of bodies: if in the simple metals, in their component atoms; if in compound bodies, in their compound atomic constituents. It is not improbable, that in strictness of chemical language, that these muscular granules are *muscular atoms*. Now, an electric spark passed along a nervous cord to a muscular fibre, will cause these granules to become electric; and as the granules are not divisible while they retain their organization, *they must individually become positively electric at one end, and negative at the other*. In truth, *each electricized granule becomes a miniature magnet*. These magnets being all similarly situated, all their positive poles will look in one direction, while their negative ones will point in a contrary way. This brings a positive and negative pole in juxtaposition throughout the series. Thus, , let the dark ends of these marks represent the positive and the open the negative poles of a series of magnets arranged in a row. Here we constantly have positive opposed to negative, and vice versa. As these poles mutually attract and are attracted by each other, these individual magnets, if so circumstanced as to admit of free motion, *will, in obedience to their attractive force, approach each other, until their proximity causes an exchange of their electricity*; that is, the positive pole of the one granule will attract and be attracted by the negative pole towards which it looks and in close proximity to which it is, until these opposed poles meet, at which time and place there will be a mutual exchange of their electricities, and passivity or neutrality results. Thus the opposed poles are brought into the same electric state, and repulsion is the result. *Their approximation is CONTRACTION; their repulsion is RELAXATION*. What I have just described as taking place in two contiguous muscular granules, takes place at the same time in many or all those in the same fibre. The number of these muscular magnets, acting in concert, and the amount of their electric *tension*, will be the measure of their force, that is, of the given muscular contraction. Perhaps I

should be a little more explicit upon the source of the electricity which magnetizes the muscular granules. Without entering into an elaborate disquisition upon the nervous system, we may assume, that the nervous centres are electric reservoirs, something similar to the Leyden battery. Every movement and every chemical reaction within the body is attended by the development of more or less electric excitement in the immediate vicinity of its occurrence. This excitement is conveyed by the afferent nerves to the brain-spinal marrow, or to the ganglia of the sympathetic. By this means, the charge is constantly kept up in these centres. From one of these, a spark is sent out along an efferent trunk. (The mode of its emission from the nervous centres can not be here investigated, for the want of space.) This spark, while passing along this nervous cord, produces no sensible effect—the cord being insulated by a covering of gelatine, (the *facia*)—but after the cord has divided and subdivided, until a very delicate thread from it enters a muscular fibre, this thread here takes the spiral course which nerve-twigs have been seen to assume near their termini. By thus being wound around the muscular fibre, like an insulated copper wire around its iron armature in the common horse-shoe magnet, the electric spark which it is conducting is brought to bear on the muscular granules, and they are thus rendered magnetic. As regards the iron of which such a magnet is composed, there is but one opinion among natural philosophers—that each atom in the bar is individually *magnetic*, having its own proper poles; and these poles are at right angles, or nearly so, with the moving electric current which develops this induced magnetism. Now, it is quite evident, that a series of miniature magnets thus arranged, if left free to move in obedience to their polar attractions, would approach one another, for a positive pole looks directly towards a negative one, and vice versa; these poles mutually attract each other.

In the iron magnet, these poles are kept asunder by physical obstructions, and consequently the most powerfully electrified iron bar is not visibly shortened.

The case is, however, different with the muscular magnet; each of its granules becomes individually magnetic, just as is

the case with the atoms of iron in the iron magnet, but in the muscle there is an open space between each two contiguous granules, and when the series of granules become magnetized, there is little impediment to their moving towards each other in strict harmony with their polar attractions. Consequently they (the individual muscular magnets) approximate, and consequently the distant ends of the muscular magnet, taken as a whole, are brought closer together. *The moving of these muscular granules towards each other in obedience to their attracting polarities is the cause of muscular contraction!*

RECAPITULATION.

As I have studied brevity in the preceding article, some of my positions may not be entirely intelligible. I will, therefore, briefly recapitulate them.

1. Motion is not a real entity, but the result of *force*, depending upon existing physical and chemical conditions.
2. Motion implies pre-existing force.
3. Physicists acknowledge but two forces—attraction and repulsion.
4. Combinations and modifications of these two forces produce all the varying motions of the universe.
5. All motions performed by living beings are traceable to these same two forces.
6. Life implies special conditions, but no new forces.
7. Muscular contraction must be referred to the agency of one or both of the said two natural forces.
8. Muscle is made up of a great number of bead-like granules, arranged in linear sets or rows.
9. These granules are not in actual contact, there being a small open space between each two.
10. These granules are not divisible without destroying their organization.
11. They are, therefore, muscular atoms.
12. When any body is rendered *electric* its component atoms become individually *magnetic*.
13. The muscular granules are rendered *magnetic* by an electric current which circulates around them through a nervous twig *coiled* around the muscular fibre, in much the same manner, as an insulated wire carrying an electric spark is

wrapped around the curved iron bar forming an artificial magnet.

14. A series of granules thus *magnetized* will have all their positive poles looking in one way, and all their negatives pointing in the contrary direction.

15. By this arrangement, positive and negative poles are constantly opposed to each other throughout the series—thus, ● ● ●. (The dark ends are positive, the open ones negative.)

16. These positive and negative magnetic poles, pointing as they do directly at each other, and being quite contiguous, attract and are attracted by one another.

17. By virtue of this attraction, these muscular magnets approach each other.

18. When the poles touch each other, their magnetic tension is neutralized, and repulsion follows. This last explains the readiness and force with which muscles relax.

I am aware that many objections may be taken to my positions and conclusions; but I feel able to answer any that may be made, and I hold myself ready and willing to do so at any time.

I have already made this article longer than I designed: so, for the present, I will add no more.

HELENA, MAY 12, 1854.

ART. XXII.—SINGULAR CASE IN PARTURITION.—BACK FŒTAL PRESENTATION—DEATH BEFORE DELIVERY.

By J. E. THOMPSON, M. D., of Mo.

Mrs. Holland, ætas 25, an Irish lady of rough habits, general health good, rather corpulent. Confined in her fourth pregnancy. March 18th, 1854, 6 o'clock, A. M., first saw the patient. Pulse 112, small and thready; skin dry and hot; eyes sunken, and countenance anxious. Examination *per vaginam* detected deep inflammation of the os uteri and abdomen, with *back fœtal presentation*. Muscles of the abdomen

rigid, and those of the lower extremities contracted. During examination, patient gave signs of great pain, and I was finally prevailed upon to desist, without being satisfied on my part. Ordered dry cupping on the sacrum, and one fourth of the following mixture every fifteen minutes, hot as could be drank :

R. Uva ursi, ʒii.

Aqua (boiling) pt. i., m.

7, A. M. Much prostration. Pulse 100. Os uteri dilated. Muscles of the abdomen and lower extremities rigid; complains of "stich" in the back and hips; countenance anxious.

8, A. M. Thorough examination *per vaginam* revealed ruptured peritoneum, with gangrenous symptoms in the umbilical regions. Ordered a poultice of port wine and oat meal, as a local application to the umbilicus, and opium combined with ammonia internally. Made an effort to turn the child to a natural presentation, but failed. Child alive. Slight hemorrhage; vomits blood mingled with a dark yellowish mucus. Slight labour pains. Pulse 90. Spasms of the abdominal muscles. Slight perspiration.

9, A. M. Had two "pains," but to no purpose. Violent spasms—muscles of the abdomen and lower extremities contracted. Ordered camphorated chloroform, gtts. xx, internally. Pulse 98.

10, A. M. Spasms recurred twice, but the re-administration of the Camph. et Chlo. subdued them immediately. Vomiting continues. Ordered ʒiiss of Sp. Aeth. Sul. Com., which arrested it in a few moments. System relaxed. Pulse 65. Free perspiration.

11, A. M. Quiet. Slept at intervals. Pulse 80. Slight delirium.

12, A. M. Symptoms the same.

1 o'clock, P. M. Profuse uterine hemorrhage; lost forty ounces of dark blood, interspersed with a yellowish matter. Arrested it finally by cold applications. Complains of a "stich" in the dorsal and abdominal regions. Delirium at intervals. Pulse 50. Countenance haggard, indicative of intense suffering.

2, P. M. Pulse small. Eyes sunken—turned upwards—

pupils contracted; breath irregular; extremities cold; delirium; fast approaching syncope. Thus she lay till twenty minute past 4 o'clock, P. M., when death relieved the sufferer.

Post-mortem Examination — Drs. Campbell and Brooks present. — Verdict: "Death from gangrene." Post-mortem revealed two large ulcers on the peritoneum; lower bowels had descended some three inches; mortification of the small intestines and lower portion of umbilicus; os uteri contracted — the seat of deep inflammation. Fœtus, back presentation; weight 13 lbs. Umbilical cord wrapped three times around the waist; deformed pelvis.

REMARKS. — Upon my first visit, I inquired of the patient and husband in reference to her full time, etc., and learned that her full time would not be till the 20th ult.; hence my movements were with reference to this, hoping at first that nature would accomplish her work without artificial aid. After the second examination *per vaginam*, I proposed to extract the child, as it was the only means I could devise to save the mother; but both patient and friends bitterly opposed the proposition. She declared she never could be saved; and friends thought the same. Her former confinements were considered critical, having to use forceps every time; lost every child. After death, I learned from a neighbor lady that she had gone *four weeks* over her full time, without any real labor pains until *forty* hours before I was called. The query in my mind is, Could I have saved the mother by extracting the child when I first saw the patient?

OSAGE CO., MO., APRIL 15, 1854.

ART. XXIII. — NOTES OF DUDLEY'S LECTURES.

BY FRANK A. RAMSEY, M. D.

(*Continued from page 187.*)

Writers, for the most part, have confined themselves to ulcers on the extremities, probably from the fact, that they are very difficult of cure — the specific gravity of the blood pre-

venting the vessels of the part relieving themselves as readily as in other portions of the system.

The practice of Bayulon in ulcers was defective. He used the bandage in a manner that permitted but little if any advantage—passing it, as he did, entirely around, when it should have been turned only from one side to the other of the limb. Ulcers have been variously designated by different writers and teachers; but that of Mr. Cooper is probably as comprehensive and concise as any.

INFLAMED ULCERS, as properly termed Irritable Ulcers, can not have more than two causes—local or constitutional—and which, it is sometimes a difficult matter to decide. But we may infer the constitutional nature, and direct remedies accordingly, when an ulcer changes its aspect two or three times a day—sometimes secreting and again dry. But when the cause is local, the remedies must be local also. It is really a matter of astonishment that one so extensively acquainted with the subject of ulcers as Sir Astley Cooper, should treat of them so vaguely, not to say ridiculously. He says: “Ulcers are whimsical; what would appear soothing and pleasant to-day, would, the succeeding day, be highly disagreeable. In the dressing we should please them as far as possible.” But yet he gives no information to guide, leaving the practitioner to find out, as best he may, the way most pleasant to the ulcer he may be treating. The practice of Underwood is absurd—employing corrosive sublimate as a supremely efficient anodyne or pain allaying agent. The only treatment requisite is summed up in a very few words. Regulated diet and emetics, if the constitution is deranged, in connection with the local means, which are, under all circumstances, the common roller bandage and tepid ablutions.

VARICOSE ULCERS, are a diseased and swelled condition of the veins, producing absorption of the adjacent tissues, and sometimes of the coats of the vessels themselves. From the fact of the usually speedy cure of the ulcers, it is inferred that the true skin is not absorbed, though suppuration may have been active and prolonged. This ulcer ordinarily presents to observation upon the lower extremities.

The former practice of applying poultices for the cure of

these ulcers is very properly abandoned by intelligent surgeons; but the substitute is, to say the least, objectionable, if not positively pernicious. There is certainly danger in tying the vein which furnishes blood to the ulcerated part; for the inflammation which is essential to the throwing out of coagulable lymph, may extend to the heart, deposit lymph, obliterate the cavities, and destroy the patient. But does it really do any good to tie the vein? Those who employ the practice, diet and confine in bed, their patients, and it would seem rational to ascribe more influence to that which is deemed subsidiary treatment, than to the operation. Indeed, the only treatment necessary, is to support the vessels of the whole limb by the bandage, which must be continued for some time after the ulcer has healed. If a patient in a varicose condition of his limb, with probably all the external coat of the cutis destroyed, and the leg exceedingly tumefied, has the bandage properly applied, he will soon be relieved. All that is necessary, is a roller 3 or 4 inches wide, applied very tightly—as tight as the strength of the bandage-material will allow—and but a few days will pass before the bandage is loose, and the leg, even though as large as the body, will be reduced fully two-thirds. The bandage should be re-applied as often as necessity indicates, and positive and proper attention be paid to the constitution of the patient; and though he may have been a sufferer for many months, his anticipations of good health will be realized.

GANGRENOUS ULCER, is a sore which, from some cause, begins to slough, with more or less suddenness, in the granulation or at the edges. Various causes will induce gangrene;—a debauchee may change an ulcer of a common kind into a constitutional gangrenous ulcer, by exciting a highly inflammatory state of the system, affecting alike every part; but the weaker—the ulcer—is incapable of sustaining the phlogosis, or unable to react, and becomes gangrenous. But a debilitated condition of the system, such as prevails from any prolonged attack of disease, is productive of gangrenous ulceration—the parts being less able to maintain the *vis vitæ*, very readily become gangrenous. There are also Local Gangrenous Ulcers, produced by violence sufficiently intense to destroy the

power of the part to react, and by the local cause continuing to act until the reactive ability is wholly overcome. The treatment of gangrenous ulcers, of course, must depend upon the nature of the cause inducing the deadening result. If constitutional and inflammatory, depletion from the general system is indicated; or, if general debility prevails, stimulants, with the bandage and warm water, as local accompaniments. If the gangrene is local, the cause, if still operating must be removed, and pressure, with brandy or water, as the case may be, as a lotion, must be employed.

ART. XXIV. — HYSTERICAL MONOMANIA — IDEAL MALADIES.

The following article occurs in the *Western Journal of Medicine and Surgery*, for March, 1854, under the head of selected articles, though not credited to any other publication. It hardly admits of abridgement, and detailing as it does a marked case of peculiar interest, it is here given entire.

HYSTERICAL MONOMANIA. — By I. P. COLEMAN, M. D. — In October, 1852, I was called to Mary —, a young Irish woman; aged 18, affected with what I supposed to be hysterical convulsions. The symptoms were strong muscular movements in both upper and lower extremities; violent contortions of the body, and twistings from side to side, head thrown back, face flushed, eyelids closed and tremulous, arms forcibly brought against the breast, and hands grasping at the throat, with a whining cry of distress. The attendance of two persons was required to keep her in bed.

The use of valerian and cathartics calmed the nervous tumult so satisfactorily that I made but three visits, and heard no more of the case until the following June. At that time rumor was busy upon the strange phenomena taking place at the house of her employer. I went thither, and obtained the following history, viz: The nervous irregularity had been comparatively quiet for some time after my former attendance, but in two or three months increased in frequency and violence, until the paroxysms were frightful, lasting two or three hours with loss of consciousness, and disturbance of the affective faculties — patient extremely irritable on recovery,

assailing the spectators with any missile at hand. Complained of a knawing and tearing sensation in the stomach, and during the paroxysms the epigastric distention was so great as to excite uncharitable suspicions upon her reputation. Loss of appetite for ordinary food, but drank large quantities of milk when unobserved, as that gave most relief to the internal knawings, and quieted the commotion so frequently present; embonpoint well preserved, and complexion sanguine. The attacks were almost daily, and most frequently in the evening. The girl was fully of the opinion that she contained a living animal in the stomach. Early in June her case was stated to a celebrated doctress, who pronounced it to be either a snake or a tape-worm, and ordered fern root to be taken in decoction. Apparently much against her inclination, she was induced to drink it, when a dreadful scene ensued. The "*baste*," as she termed it, was offended at the potion, turned his back upon it in a rage, and made desperate lunges to escape through the œsophagus, and once blew sand into her mouth, which she ejected into a basin. The inter-gastric evolutions continued thirty-six hours, during which time violent spasm and maniacal ravings were almost constant; a calm then ensued, and there was tranquility for four or five days, at the end of which time a new phase was presented. Horrible sensations of strangulation, and violent, but ineffectual efforts to vomit, came on, the hands were thrust furiously into the fauces, and fragments of dark tough skin forcibly extracted. The apparent agony during the efforts, was great, each paroxysm terminating with violent hysterical convulsions, turgid face, protruding eyes, throbbing carotids, and bursting jugulars, with seeming unconsciousness. Day after day such things were exhibited, but chiefly in the evening, and always in the presence of several attendants and spectators. The quality of the material changed from skin, apparently having scales, to a soft, solid substance, which when dry, resembled sweet potato in fracture and odor: also, a substance similar to wood having undergone eremacausis, and smelling like mushrooms; also, the green and ferruginous sand of the locality. The above substance to the amount of two or three pints, was forcibly thrown from the throat: then followed viscera, intestines in fragments, making five feet, a small heart, liver and trachea, all free from putrefaction or digestive erosion. At this stage of the proceedings, I first saw the patient, when she was beginning to produce bones, a few joints of small vertebræ resembling the caudal extremity of an eel, ribs, with processes for vertebral articulation, and osseous union to the sternum, with cartilaginous joint in the

centre ; also, several pieces of dorsal vertebræ, one having a lumbar and sacral termination, and some small bones resembling reptilian extremities. The vertebræ amounted to several inches, and were in sections of two, three and four joints, united by some muscular and fibrous tissue, bearing the appearance of having been macerated or partially digested. As these specimens were produced at intervals of two or three days, and twelve or fourteen days had elapsed since the first exhibitions of skin, the latter productions evinced more and more the effect of maceration, until the last were nearly denuded. The absence of sound information in comparative anatomy and reptilian habits, together with the patient's history, and the testimony of the family,—unimpeachable in veracity, and incapable of collusion,—gave plausibility to opinions which were subsequently disproved. An Irish girl having been in the habit of drinking from a running stream at home, becomes sea-sick on the passage, feels an epigastric gnawing—one month after her arrival has hysterical convulsions, her first derangement in health ; gastric irritation increases ; reflexed movements in the voluntary muscles cruelly augmented ; firm conviction of the existence of a living animal within her, she takes the decoction of fern root ; convulsions aggravated ; the animal dies ; in six days she begins to eject skin, flesh, viscera and bones, the first not acted on, the last very much so by the gastric fluids. A strong coincidence in chronological and physiological appearance. Although Ireland is destitute of reptiles in general, the good old Saint has suffered one variety of water lizard to remain, familiarly known as the man-keeper, which, tradition says, is frequently swallowed. When dissatisfied with his situation, and the unlucky wight also with his tenant, the latter has but to lie down with his mouth near a babbling stream and the reptile makes his exodus. The text books, after enumerating the parasites most common to man, have a stereotyped appendix of accidental occupants—larvæ of flies, triton palustris, lacesta aquatica, salamander, &c., and these are so modified by their new situation, as scarcely to be recognized.

The lacesta aquatica, like the tadpole, for a period of his escape from the ovum, is truly aquatic. He may possibly be swallowed in this stage of existence. Vitality, and the active principle of development in early life, were supposed to be capable of resisting the digestive process. His small pulmonary, when compared with the systemic artery, proves him to require a very limited quantity of air for respiration, even less than the fishes. The law of adaptation acting so extensively on inferior animals might so have changed his habi-

tudes as to enable him to abstract a sufficiency of air from the food and saliva. A constantly elevated temperature, and abundance of food, might have increased his development even to monstrosity. But the climax exposed the deception by producing four entire sections of lumbar and sacral vertebræ, also the skeleton and part of the carapace of the land turtle. The artfulness of these transactions adds another example to the catalogue of deceptions practiced by the hysterical, both upon themselves and their friends. I had been present during a number of the paroxysms, had seen her struggles while extracting the fragments of bone from the throat; the hemorrhage from the fauces, and the concluding convulsions, without detecting the trick, although suspecting the possibility from the first, and advising the family to be on their guard for deception. The amount of vertebræ thus exhibited is one foot in length. As there is much vagueness in the minds of physicians as to the kinds of parasites capable of existing in living animals, I give the remarks of Professor Leidy on the subject, who has kindly offered his opinion on this occasion. He says, "the bones consist of six vertebral columns of young pigeons, fragments of cervical vertebræ of the common fowl, and bones of the extremities and head, with fragments of the carapace of a turtle. The heart and intestines appear to be those of a bird. If the collection were vomited from the stomach, it of course must have been previously swallowed. Independent of the character of the animals to which the different parts in the collection belonged, *no animal possessing an osseous skeleton* is capable of living in the *human stomach*. Serpents, lizards, toads and salamanders, if swallowed alive, most probably would not remain in that condition a single hour; indeed, no animal whatever can live within the human alimentary canal except intestinal worms, and the larvæ of several genera of flies, as the besties or bot-fly, musca or flesh fly, &c. There have been numerous instances recorded of the supposed existence of eels, serpents, frogs, toads, salamanders, snails, &c., in the human stomach, but upon examination they have invariably proved to be false."

Here is a case of reasoning monomania: the cause of the disease is obscure, as the functions of organic life appeared to be well performed, but its character is unmistakable. The contortions described above, distention by flatus, globus hystericus, gastric pains referred to the side described as pathognomonic of hysteria. Predisposed to superstition and the marvelous, it is not singular that the idea of a living animal should be entertained. Esquirol says, "a weak understanding, but little or badly cultivated, predisposes to monomania."

The absorbing idea in this case was the reptile ; a public declaration of its existence had been made, and an honorable obligation required its demonstration. Cunning, so vivid in the insane, devised the plan, and reason executed it as by inspiration. An ignorant girl, not apparently designing in other respects, conducts the scheme with the accuracy of a physiologist, for a time ; thus the nervous agitation increases in force and frequency for several months—she takes medicine ; the paroxysms are exalted ; in thirty-six hours the commotion subsides ; teguments are extracted from the throat, apparently flesh, viscera, bones, at first covered with tissue, gradually less and less so, until they are entirely denuded. Here the judgment failed ; too great a desire for notoriety exposed the trick, but not the manner of it. Quadruplicates of entire sacral vertebræ, with the skeleton of a turtle, were too much for the largest credulity.

That much of this material came from the stomach, I have no doubt, judging from personal observation and the testimony of witnesses of undoubted sincerity. The ability in some to regurgitate, is great, especially when the fauces are titilated. The absurdities of hysterical whims are proverbial. When delicately educated females drink their own urine, and vomit up to convey the impression that renal function is suspended, and the stomach doing vicarious service ; or when the urethra and vagina are filled with pebbles to cheat the doctor, and the hoax not confessed until placed on the table, before a class of students, and tied, as for lithotomy, we are not astonished at any report of extravagance.

Esquirol again says, “ when monomania does not become chronic it frequently terminates spontaneously, with or without sensible crisis.” The girl is now well, and unless the violent revulsions so frequently excited in the stomach at these exhibitions, modified some existing morbid condition of that organ, the cause of recovery is not apparent. Milk is no longer relished, and the appetite is good for ordinary food. As this case excited much interest in the country, and even among the savans of the city, it is offered to give publicity to the declaration of Prof. Leidy, “ that no animal possessing an osseous skeleton, is capable of living within the human stomach.”

PEMBERTON, JAN. 16, 1854.

The foregoing is somewhat similar to the case in Kentucky which produced so much wonderment in the “ region round-about ” at the time of its occurrence. The patient, an unmarried female, 26 or 28 years of age, was affected with hys-

terical convulsions, the most violent contortions, had the faculty of luxating her joints, and produced from her mouth, fauces, and other parts of the body, bones and portions of bones. Was subject to spasms, in one of which she lay for dead some fifteen or twenty minutes, apparently breathless, until from the conclusive evidence, of a good pulse of about 60 to the minute, the attendant physician discovered the deception.

The following is the substance of the history of the case as detailed by an attendant physician, Dr. J. D. Winston, now of this city :

1st. Concretions in the mouth, phosphate of lime, throughout the extent of the jaws, adhering to the gums, teeth, cheeks and tongue, being moulded to the shape of the parts to which they were attached, brittle and chalky—probably ordinary salivary calculus. Was readily removed by forceps, &c.

2nd. The next stage the physicians were called to remove a re-accumulation of this concretion. She now commenced luxating her joints with violent spasms, throwing her limbs—wrists, shoulders, hips, &c.—out of joint faster than they could be reset.

3rd. Was sent to the country, where she soon began to “bone,” as it was termed, (the idea of “boning” being probably suggested by the concretions above referred to.) Bones supposed to be fœtal, came from the vagina; others from the mouth, fauces, and throat, resembling the bones of squirrels, chickens, &c.

4th. Being confined in her room and restricted to farinaceous diet, she produced no more bones, during the whole time, about three weeks. But becoming very much reduced, lead to

6th. Resumption of animal food. Again bones were produced as before. Upon inquiry they corresponded precisely with those of the chicken which had been sent to her for food.

She appears to have managed her part most adroitly, so that for a time she puzzled the physicians, and was the wonder of all. At the last palpable evidence of deception, Dr. D. refused to have any thing further to do with the case, and, as she was removed to another quarter, heard no more from her.

More recently there was a case in Logan county, Kentucky, of an almost exclusively monomaniacal, rather than hysterical, character; a full account of which was detailed to me in August, 1849, at the house where the subject was at that time residing, but had recovered, by Mr. T., who had effected the "cure." I copy from the record on my diary. Old Mr. W. imagined he had a fish in his stomach. He first conceived it to be a tadpole, but Mr. T. persuaded him it must be a fish. He could feel it gnaw and "flutter," and had to drink whiskey in large and oft-repeated doses to keep it quiet. Finally Mr. T. told him he could give him a medicine that would remove it. Fixing up a potion that would have the double object of exciting disgust for whiskey, and at the same time "vomit up the fish," it was duly administered at night. Having vomited freely, the old man related the next morning the joyful news that he believed he had thrown up the animal—felt it ascending to his mouth and drop in the vessel. The servant, provided with a fish already at hand from a neighboring stream, was sent to search the contents of the emptied vessel—returning with the fish, the old man declared it to be the identical one. He never had another attack.

Mr. T. had but just detailed to me this history of the case, when the old gentleman came to the room, whom, at the suggestion of Mr. T. before he came, I addressed on the subject: "Mr. T. has just informed me of the circumstance of your having swallowed a fish, in drinking at a stream. How long ago was this?" His countenance brightened; for he loved to talk about it. He said he drank it about two years ago from a spring along the road he was traveling. "Did you know it at the time? or did your mind *reflect back* upon the circumstance of your drinking at the spring?" "Yes, my mind was reflected back." "Were you certain you could *feel* it?" "Yes, I could feel it fluttering, and heard it too." "Heard it? how?" "Why, sucking." This he illustrated by reference to the respiratory efforts of a fish out of water. He was, of course left to entertain his own views in regard to the matter—without suggesting any thing that would serve to unsettle his belief in the efficiency of the rem-

edly employed, and the permanency of the *cure* in his particular case.

In such cases it is expedient not to disturb the delusion, or, in endeavoring to remove it, to proceed with the greatest caution—yielding to prejudices and prepossessions, and rather suggesting the stimulus to rational inquiry calculated to lead, voluntarily, to a sound conclusion. An instance was related to me, when a boy, by those knowing to the facts, of a man who was tormented with the hallucination of a “mouse in his back.” He seemed rational upon other points; but this idea was sure to intrude in every conversation. If inquired of his health, &c., he was well *except* that he was annoyed with that “‘*plagued*’ mouse in his back,”—averring on such occasions that he “felt it now,” suiting his actions to the idea. No argument, persuasion or ridicule could drive this dominant notion from him, but tended only the more to confirm and magnify it. His opinion was finally concurred in by his friends, directing him to a certain doctor, who, as preconcerted, advised an immediate operation. This was submitted to. Having provided a mouse for the occasion, the operation was so far proceeded with as to draw blood, in which the animal was besmeared, and with some force apparently extricated from the wound. The patient was satisfied and “*cured*.” And so he remained for two years, when some imprudent persons succeeded in persuading him that it was all a sham. The old man was chagrined, amazed, alarmed. “Well,” said he, “it is there yet: *I feel it now!*” And from that time he lived, and finally died, under the full domination of the tormenting idea.

B. W.

ART. XXV. — CASE OF SILAS WILLIAMS' NEGRO, GLASGOW.

By W. N. HURT, M. D.

May 2d, 1852, I was called to see patient, who, I was informed, was suddenly taken, the previous evening, apparently with a spasm, which rendered him almost helpless and insensible, after which he complained some through the night, without being able to locate his pain. On my arrival next morning he complained of nothing but a slight soreness across his loins, which, his master thought, was owing to his tumbling about the previous evening. He seemed to be doing very well; was clear of pain and fever, and complained of being hungry; his pulse was a little slower than usual, though full, firm and regular, which I supposed to be natural with him. I left him without prescribing any thing but a mild cathartic. He was up and going about in the evening, and seemed quite well. Complained none the next day, and on the following day went to work, when, in the evening, he was attacked as before, though with more violence. I visited him next morning; was informed he had lain all night apparently insensible. On my arrival, found him quiet; breathing free and easy; his pulse slow, but full, strong and regular; no signs of spasm or muscular contraction; would answer my questions; said he felt no local pain, but felt bad all over. Examined him thoroughly, particularly the spine; could make no discovery whatever that would assist in the least in making out a diagnosis; neither were his answers to my enquiries any more satisfactory. He soon seemed to become much better; said nothing hurt him, only he felt weak and bad. Prescribed a cathartic, with an anti-spasmodic, to be used in case the symptoms should demand it. Saw him again in four days; had had no return of the violence of the symptoms, but seemed notably prostrated. Yet he was able to be up and walking about; complained of soreness in the right hip, as he expressed it; said he felt weak and bad all over; pulse as before, only somewhat more feeble; put him on the use of tonics, with an occasional stimulant. He this time informed me that he had often been in this condition, but took medicine and

got well. I saw him no more, but was informed he remained about the same until about the morning of the fourth day after my last visit, when he died suddenly.

Post-mortem appearances ten hours after death.—All the functions of the thoracic viscera seemed to have been regularly and healthfully performed; none of the internal organs exhibited signs of organic disease except the bladder, kidneys, and their appendages. The mucous membrane of the bladder was much disorganized; a portion of it exhibited dark red or rather purplish patches; the muscular coat was much thickened and contracted, and quite firm; the mucous membrane was drawn into folds, with their edges reddened and abraded, though the abrasions had in no place penetrated through the bladder. No calculi present; the ureters were very much enlarged; the right kidney was also much enlarged, highly congested, and of a reddish brown color, with spots of extravasated blood; the mucous membrane of the pelvis of the right kidney reddened and somewhat thickened; the investing coat was easily separable; the left kidney exhibited little signs of disease, was slightly congested; the peritoneal coating in the vicinity of the bladder exhibited signs of inflammation.

REMARKS ON THE ABOVE.

Dr. Hurt states, in a postscript, that the case will be submitted to the court for judicial investigation—the purchaser having sued the former owner for the value of the slave, upon the ground that the negro was unsound at the time of the purchase—and requests an expression of our opinion as to the nature of the disease, &c.

From the confession of the patient that he had, on several previous occasions, been similarly affected, it is *more than probable*, that the kidney disease, at least had been of long standing, and very probably was the cause of death. The presence of an excess of *urea* in the blood, (uremia,) is sufficient to produce death; but whether or not, in this case, the fatal result is to be attributed solely to uremic intoxication, we are not prepared to assert positively. There may have been organic disease of the brain:—it might be fairly presumed that there was; but, as no examination of the organ

was made, nothing positive can be said on that point. Had Dr. Hurt carefully examined the brain and its appendages, the case would have been fully made out; (and we presume he would had he anticipated a judicial investigation.) Had no evidences of disease been found in the brain, we would be willing to hazard the opinion that the kidney disease alone was the cause of death.

J. W. K.

ART. XXVI. — ETHNOLOGICAL AND PHYSIOLOGICAL OBSERVATIONS.

In the N. O. Med. and Surg. Journal, for May, 1854, the editor, Dr. Dowler, presents some interesting facts, under the head of "Medico-Legal Jurisprudence—Ethnological, Physiological and Sanitary Observations," suggested by a recent trial.*

Sanitary Developments.—The editor alludes to the indications of advanced age of the ancient population, (the "creoles,") among both whites and blacks—the gray hairs of the living—of the dead, the inscriptions in the grave yards. Also in the trial:—Of twenty witnesses, one was 110; one, 93; one, 85; one, 80; one, 77; two, 74; one each of 72, 70, 69, 68, 66, 64, 63; two of 62 each; one, 59; one, 56; two, 54.—Average, 70–6.

A Creole lady, aged 59, deposed that her grandfather "could read the finest print without spectacles at the age of 98, at which age he died." Another lady, aged 56, says her father was 110 at his death, 8 or 9 years ago. One testified that his maternal ancestor lived a century. "The documentary evidence, as the church records of burial, indicate greater longevity."

The great longevity probably obtaining in and near the tropics, is explained upon the principle, "that the heat-pro-

* This synopsis was designed for the "Record" department of the Journal, but being pressed by the printers for copy, and none other at hand, it is given at this place.

ducing process is impaired in advanced life, and the more so where the winter is bleak, cold and prolonged." Hence the mortality of the aged during winter, &c. In warm climates, the calorific function of the old and feeble is less interfered with, rather aided.

Ethnological Developments—The Hair—Color—Fecundity.—The peculiar hair of the negro and of the indian, for a century back, as at present, was a subject of inquiry at the trial—its microscopic anatomy not referred to. The following are from depositions taken :

M. Bouligny deposed : Has seen "a great many mulattoes and mulatresses, issue of negroes and white men, that have, many of them, flat, straight hair." One instance was referred to, (her mother a negress,) as "a perfect image of an indian girl ; she has the hair of a sauvagesse." * * *

"Pierre Deverges sworn. Says he was born in 1806, in this city. They had in their family two negroes imported from Africa. Their hair was as black as their skin, and straight, a little curled, (*ondée*.) They were brother and sister. The brother had his mind deranged."—"Came from the Foular nation, on the coast of Africa." "Both came from the coast, and had the same features ; they both had noses such as negroes have, to wit, flat ; had piercing eyes ; were very intelligent." "They looked like all negroes, with the solitary exception of the shape of the hair." * *

The editor remarks :

"A free woman of color, born in N. O , aged 72, swore that her father was white, her mother was black and ' had a straight nose.' * * *.

"This witness lived with a gentleman fifty years—had seven children, all now living—facts not favorable to hybridity, sterility and short life among mulattoes.

"In the South, whatever infertility may be noticed in mulatresses is owing, not to their whiteness or hybridity, but to their dissoluteness. The same truth applies to the white race of like immorality."

Some further facts of interest from the judicial inquiry follow :

The Rt. Rev. Bishop Portier, in his deposition, spoke of an expression characteristic of the Indian race—"something serious and grave, and an air of melancholy about the face."

He also referred to the "differing complexions of the children in the colored or African race; as the family descend, the first descent is half African and half white; the quarteroon contains one-fourth of the African and three-fourths of the white, and so on. The African blood *disappears*, as it were, in succession of time. It is not so in the mixed white and Indian blood; for the writer observes, and he has known facts to the same effect, that the Indian blood and features will reappear in the third and fourth generation." The father of a family, a Mexican, with Indian blood, and the son, both married white ladies; "and there is considerable difference in the color and features of their children; some look like squaws and are very dark, and others are of white color."

General Plauché testified to the difference of complexion in different Indian tribes. So did Gen. T. N. Waul. "So far as he had seen the Indians of the South, the Choctaws and Chickasaws are very nearly the same complexion. The Cherokees are lighter, the Creeks darker. The Seminoles become much darker, and the color of their skin increases as they approach the sea-board. The Karanquois of Texas are the darkest of all. Some of the Mexican Indians, of whom he has seen a few specimens, were as black as African negroes, although they had no African blood in them, and their hair was perfectly straight, and their features more prominent than those of the North American Indian—sharp features, high brows. They resemble in appearance, as nearly as witness can compare them, a Spaniard or Castilian painted black." Observed the old people to be generally darker than the young. Every kind of feature and color among the soldiers of the Mexican army. Of one family, "some of the members were as black as negroes, others were brighter."

Witness agrees with Bishop Portier, that there is "nothing more mysterious than the product or offspring of mixed races; but from his observation of the Indian race, the most mysterious thing of all is, that in families said to be descendants from a mixed ancestry, a portion of which is Indian, no matter how remote, children are frequently born showing in complexion, hair and appearance, the Indian ancestry to a great or greater extent, that the appearance in the ordinary half breed." Has "known three or four instances where families that were said to be descended from Indians, in all of whom there was occasionally some member of the family plainly and distinctly marked with Indian lineaments and complexion. There was invariably a great distinction between the members of the family, and there were always some members that did not retain their resemblance to Indian origin."

Alluding to Col. H. Smith's quotation of authorities to show that "some tribes in Dongola and Sennaar have one lumbar vertebra more than the white race (!)," Dr. Dowler remarks that it is little creditable to the South, with nearly four millions of blacks, that nothing reliable has been published concerning the anatomical, physiological or pathological peculiarities (if any) calculated to clear up the doubts respecting races, when by such investigations the riddle might be solved on the spot. To this he urges attention. "The field is American; its cultivation ought to be by Americans."

An American abroad recently wrote to N. Orleans for further information as to whether mulattresses are wanting in ovarian cells! In regard to which the N. O. Med. and Surg. Journal, though "not tinctured with the new-fangled beliefs, is open to conviction."

A quotation from the Rev. Dr. Bachman, addressing Dr. Morton, shows his opinion as to the fertility of mulattoes, &c. The following presents the substance :

To the question of Dr. Morton, how long the mulatto breed would last if compelled to intermarry, Dr. B. replies, "Till the day of judgment." The males and females, he says, are equally prolific. That even in cases of loose morals impairing their power, the fertility of the mulatto female is greater than of the white under the same circumstances. That they cannot be said to be short lived; they raise large families of children, and seem often more prolific than the whites. That on an average, he has seen among them fewer cases of sterility, with no greater tendency to it in the sixth generation than in the first, partaking, in this particular, of the characteristics of the admixture of the Caucasian with the ancient Huns. "Indeed," says he, "I have seen the descendants of an admixture of all the five varieties of Blumenbach, and probably one-fourth of the world is now composed of individuals of mixed blood; yet I have never seen any races that evinced a tendency to sterility. The American Indians, so far as I have been able to ascertain, are less prolific than any others, but the causes of this must be traced not to any admixture—for such products I have always found more fertile than the native Indians—but to the slavish drudgery of the females, and to the irregular wandering lives of deprivation and suffering to which the tribes are exposed. In the lower animals it is the

same ; all varieties are prolific with any other variety of their own species."

Dr. Dowler thinks these views of the fertility of mulattoes confirmed in New Orleans, where the free colored population is " numerous, wealthy, intelligent and *white*." The *white*, he says, has, after a few fusions, in some cases, nearly or quite effaced the *black element*, which, " thus merged and lost, can boast of a fecundity, and probable health and longevity equal to the pure races of like habits and morals." And he adds, that if the doctrine of their hybridity be unwarrantable, and the characteristics of the black soon merge into the white, these are less remote and separated from each other than the Indian and the white, provided that further investigation confirm the evidence on this score.

B W.

ART. XXVII — RECIPROCITY OF PHYSICAL AND PSYCHICAL INFLUENCES

The following extracts present this subject in a strong and rather novel aspect :—the last, if not as philosophical as the first, is worth preserving as a speculative curiosity.

Psychical Effects of Exercise.—A writer in the N. Y. Scalpel, for May, in an article on " Education, Physical, Social and Moral," speaking of the necessity of exercise, says :

" We need exercise, that every muscle shall perform its full function, and that every other structure shall be supplied with its due proportion of blood and of the vital energy. This necessity for exercise is the grand and fundamental necessity of life. As a means of growth, of development, and the perfection of the physical frame, all admit its value ; but as a means of preventing the morbid irritability of the *nerves*, and preventing *disease of the mind* and the *development of vicious propensities*, it is not so well understood by the masses.

" As a means of perfecting the *special senses*, exercise is of paramount importance. The illustrations of the growth of the senses by exercise are so numerous, that each can recall many to mind ; and yet few consider that they are the *avenues to the soul*—the channels through which good or evil influences

pass ere they can reach the heart. Hence the necessity of a thorough education of the senses, that they may have power to resist evil influences. Outrage the sense of cleanliness by placing a dirty garment on a child, and the mind has become soiled. The eye should never be made to rest on an unnatural confusion of colors, or injured by incongruous shapes: nature is never guilty of such injustice; the ear should not be made to suffer from discordant sounds, or tones of unlovely passions in the voice; the nose should not be a receptacle of offensive odors, or the tongue subjected to disgusting articles of taste; but each sense should be preserved in its purity, and each strengthened by proper exercise, as well as the ear by music, and the eye by painting and drawing. As the child grows, we should combine mental with physical exercise, providing for the growth of the mind through the growth of the body, by making the exercises of the physical nature and the culture of the special senses, the expression of ideas and of emotions. Neither the moral nor the intellectual growth can be the result of strict precept, or of direct instruction; but the child will become loving, truthful, affectionate, noble and great, only by seeing those virtues and their attributes in those around it, and learning and *growing* to love them from *feeling*, and not from being *taught*, their power and value."

Diseases the Result of Moral Taint.—Another writer in the same journal denies "that diseases are caused by the mysterious providence of God," asserting that it is "contempt for God's laws;" in illustration of which he offers the following speculations. He has been relating the circumstance of a young girl, who, vicious as from instinct, at the age of twelve poisoned several of her school mates, and ten years afterwards, having lived a vagrant life, "died of consumption, caused by a scrofulous taint in her blood."

"The effect of scrofula on all who inherit it seems to quicken and vivify the temperament. The intuitions of such persons are as quick and agile as a ray of light; and among many females who are thus disposed to consumption, we find the most loving and angelic spirits, while others seem born with a demon in them, and *involuntarily*, it appears to me, they act out the tendency of that idiosyncrasy. The general tenor of our lives generates in us a life fluid, and that fluid floats in our nervous system, partaking of all and every element of our life and being. That was *inspiration* almost that led a friend of mine to discover that the motive power of the hu-

man heart had its earliest inception in maternal love. And if that maternal love is charged with *goodness*, the being that imbibes its first life-throb from its *divine impulse* is essentially a being of good ; but, if that maternal life is penetrated with a throng of evils, wrongs and outrages, then the being whose *heart impulse* receives its vital rays from such maternal elements, will be probably a hideous human basilisk, whose destiny is to sting, and bite, and infuse its virus into surrounding hearts. The evil passions, brooding like so many demons in our souls, and from thence reacting on our vital nutritive economy, actually eliminate in our physical systems a miasm that pervades and shelters itself in our blood, and, sooner or later, finds its way into our psychical nature, and like the canine virus, at some inauspicious moment, suddenly rouses itself into a terrible activity, and consumes and wastes our mortal life. You may not accord with me in this theory of scrofula, as an impelling power to evil, but, at some future time, you shall have a chapter on this point.

“Startling as such a doctrine may appear, it is, nevertheless, sustained by facts that seem as clear as holy writ ; and this idea finds a startling confirmation in that tale in the good old book, that represents our first parents as created immortal, but doomed to mortal death by partaking of the forbidden tree ; for imbibing a *lie* into their existence, the whole race are doomed to mortal death.

“M Thiers, the eloquent historian of the Revolution in France, in speaking of the prominent actors in those terrible scenes, without knowing the law of its origin, describes many of its heroes as having a *singular color of skin* and aspect of countenance, Robespierre is said to have had a sallow countenance, and a green and hideous tinge of blood, that painted the veins through the skin of a deep and *yellowish green*. The “green-eyed monster” was the central soul-element of his life, and consumed and poisoned him, and sent the best and dearest of his friends to the edge of the glittering knife.

“An organization charged with a soul-poison, may elicit its psychical correspondence from such soul-systems, and infect other beings with their own rabies, as surely as the dog will communicate his poison by his bite. The conduct of my little hag finds its explanation in this law of the life-forces. Her mother had suffered much with a cancerous affection, and left the fatal impress on the mind and body of this daughter. Her demoniacal nature urged her by an irresistible necessity, to do mischief to some one. The wrong imbibed into her own being, she sought to act out upon those around her.”

ART. XXVIII.—ON VITAL ENDOWMENTS OF NERVES.

[From the Boston Medical and Surgical Journal]

The doctrine of the existence of certain specific vital endowments, by which the functions appertaining to the nerves and nervous centres are performed, has long been considered as established in physiology; and its influence may be traced in the vast preponderance of the nervous system, over other organic systems and tissues, in the minds of all writers on the subject. There is scarcely a vital change or process, which takes place within the body, scarcely a mode of activity of the mind, which has not at some time or other been referred to some particular nerve, part of a nerve, or nervous centre, as its inherent cause. Secretion, muscular contractility, circulation, respiration, and even nutrition, have all at one time or another, been supposed to derive their power from this source. There are few diseases which do not owe their virulence and danger to the mode in which they affect certain properties of the brain, spinal marrow, or the organic nervous system. There are few remedies which do not exhibit a vital affinity for some one of the same properties. Animal magnetism is discredited because there is no nerve leading from the magnetizer to the magnetized. Embryotic influences are disbelieved, because a similar connection exists not between the mother and the fœtus in utero. Sympathy cannot be conceived to take place between parts or organs, where there is no nervous medium of communication. Whatever is unexplained in physiology or pathology, is supposed to depend on some occult power of the nervous system. For as its open and admitted powers border on infinity, no limit can be assigned to the number of those which are hid. The spinal marrow has its reflex function; the medulla oblongata its respiratory and deglutitory function. The ganglia at the base of the brain are the seats of sensation, instinct and emotion. The cerebellum has the power of co-ordinating muscular motions. The cerebrum has its automatic actions, which, according to the latest and most popular version of this physiology, comprises nearly all the functions of the soul, leaving out, in short, nothing but the will, which owing to some peculiar obstinacy of its own, will not come into the category. All the forms of thought pass, by a mutation of words, through "ideation" into "cerebration." "Those processes," says Carpenter, "called into activity by sensorial changes—varying from the simple act of perception to the highest opera-

tions of intellectual power—consisting also in the play of fancy and imagination, and including those active states known as passions, emotions, moral feelings, sentiments, &c., must be regarded as essentially automatic in their nature, and as the manifestations of the reflex activity of the cerebrum.”

The belief in such a wonderful array of powers inherent in an organic system could not obtain, without leading to the most searching investigation into the anatomical structure and physiological action of the part thus endowed. Anatomists would naturally seek to know what were the peculiar configurations and collocations of parts, of the brain, that adapted it, by its reflex activity, to produce thought, emotion, moral feelings, &c.; while physiologists would look, if possible, at the play of the machinery in living operation, to divine the moving powers when perception takes place or fancy is called into exercise, or search into the causes of the spontaneous combustion by which the steam is evolved, when dire hatred or revenge rules the hour. But, unfortunately, the success of such researches has not been commensurate with the efforts expended. The brain has been bisected, dissected and vivisected; it has been sliced, horizontally, perpendicularly, transversely and diagonally; but the radiant crystal which is destined to shine forth, when its true cleavage is struck, like the gem of Gray's elegy, yet lies in a dark and unfathomable cave. Its tissue has been unraveled, and its fibres have been traced with diligent minuteness throughout their various ramifications and decussations; but the thread which guides through the labyrinth, where soul unites with body, cannot be laid hold of. The scalpel and the microscope have both done their utmost. Dogs, rabbits, Guinea pigs, horses and asses, have been tortured into martyrdom, by a modern scientific inquisition, but the responses wrung from these tortures have been exceedingly vague and unsatisfactory.

Every prominence on the surface of the brain, every groove and fissure, has received some high-sounding Greek or Latin name. The scholastic period of its physiology most certainly has been attained. We have learned disquisitions on the cortical and medullary structure, on the vesicular and tubular portion, on the gelatinous and tubular fibre, on the axis cylinder and primitive band. But no connection, chemical, artistical or mechanical—no adaptation between the structure, and the wonderful functions that are said to grow out of it—has ever been traced. To the unsophisticated eye, the brain, when opened into, appears mysteriously simple and homogeneous. It looks in vain for a reason why its cortical and tubular portions should have any more complexity of function than the

cortical and tubular portion of the kidneys. The telescope that sees is not there; the whispering gallery that hears is not there; the cabinet so nicely framed as to remember, the loom on which the web of thought is woven, the cauldrons in which human passions effervesce, do not reveal themselves.

In the language of the popular physiologist above quoted, if we admit with him that the brain is the fount and origin of all intellectual activity, we must also admit that "sensation, thought, emotion and volition, are changes inappreciable to our senses by any means of observation which we at present possess"—language which, though sufficiently despairing for the day and generation, holds out the hope that in the progress of the mechanic arts, some ingenious instrument may be invented, which will bring these singular processes into relation with either sight, hearing, touch, taste or smell.

Notwithstanding, however, this apparent want of success in discovering any connection between the structure and vital actions of the brain, and these supposed vital properties, there seems to be a general acquiescence in the opinion, that great and important discoveries have been made, since this method of investigation was adopted. We hear, on all sides, of the great advances that have been made in nervous physiology. So well satisfied are some of the leading physiologists of Great Britain of the value and permanency of these additions to our knowledge, that they begin to discuss the meed of honor that should be awarded to those who have had a share in bringing them about. We have even the high authority of Sir William Hamilton, that the results of Sir Charles Bell's investigations are beyond the risk of refutation. One can hardly repress a smile at the complacency with which Dr. Carpenter acknowledges the credit due to the continental physiologists for furnishing *details*, while he attributes to himself and his insular confreres, every material step in advance, of the *general doctrines* of the science. France, Germany and Italy have, it seems, produced the lumbermen and brickmakers, and through them the rough materials; while England claims the Carpenters and other artificers, by whose handy work the building is "fitly framed and joined together." No son of New England would wantonly disinherit himself, by detracting from the just fame that belongs to the land of his ancestors. We claim an hereditary right, even the right of primogeniture, in all her honors, scientific and literary, as well as those won by flood and field, past, present, and to come. But in the present case, if we should barter our birthright for a mess of pottage, Esau would have the advantage of Jacob. Our portion of laurels won in the researches into the reflex

and automatic powers of the brain and nervous system, is about on a par with our interest in the celebrated discoveries of Sir John Herschell in the natural history of the moon, which made so much stir in the papers a few years since.

To be serious, in the face of the authority of these eminent men, who hold by the ear, the one the philosophical, the other the physiological world, I believe that it can be established, that while facts and details have accumulated, they alone constitute all the progress that has been made; that not a step has been taken in advance, in the general doctrines of the science, since the time of Sir Charles Bell; * that even his supposed discovery was, instead of a step in advance, a step *aside*; that, by placing what was, in reality, an attribute of mind, in a nerve, as a *vis insitu*, and recognizing but a part of a truth as a whole, he has given a tangential impulse to the course of investigation, which has kept it off the track ever since. By endowing the anterior columns of the spinal marrow with a motor power, and the posterior columns with a sensitive power, he sanctioned and gave the chief impetus to subsequent inquiries into the reflex and automatic powers of the brain, ganglia and spinal cord, and the vital endowments of the nerves generally. If the mind or spiritual principle, as a real potential essence, active in the body, is lost sight of in these inquiries, it has been owing in a great measure, to the influence of his authority.

There are but two methods of considering the nature and office of the nervous system in the human body, which present any claim to consistency in themselves, or any analogy to the forms of knowledge. Either all mental affections must be supposed to inhere in, and depend on, vital endowments of nerves, or the supposed vital endowments of nerves are another name for mental powers or activities, associated with the physical activities of nerves. According to the former of these views, it is by virtue of a specific vital endowment of the optic nerve, that when light is impressed on the retina we are affected with the sensation of color; by a similar endowment of the auditory, when the vibrations of the air reach the internal ear, we are affected with the sensations of sound; another of the olfactory, to which we owe the sensations of odor; a fourth endowment of the gustatory, to which we owe the sensations of taste; a fifth, imparted to the nerves distributed to the skin and the posterior part of the spinal mar-

* The discovery of Marshall Hall, by far the most important contribution that has been made, is one of fact, not of doctrine. It is a fact that yet stands in need of explanation.

row, gives the sensations of touch. The nerves that go to the muscles, and the anterior portion of the spinal marrow, have a motor endowment by which the muscles are contracted; while the central portion has its reflex endowment. The power of breathing and the power of swallowing are inherent properties of the medulla oblongata. And as all these sensations of sight, hearing, taste, &c., are as much affections of mind, as thoughts, emotions and passions, and since no connection between the structure or vital actions of the nerves and these sensations can be traced or even conceived; the mechanical relations in which indeed they differ, being such as are accommodated to the physical causes acting upon them from without; it is perfectly consistent and legitimate to transpose this reasoning to the brain and the mind in its higher faculties. The brain being a huge congeries of nerves of the same character as those of the superficies, any number of vital endowments may be predicated of it; and as the brain is not directly operated on by external or mechanical causes, there is no need of a mechanical division into parts distinct to the senses, as in the former case, in order that the analogy may hold. Not merely, then, is sensation, thought, volition, judgment, memory, imagination, with the passions and propensities, referable to vital powers or endowments of parts of the brain, but all the phrenological faculties with their craniological organs, coupled with all the additions that the phreno-mesmerizers have made, are perfectly consistent with this philosophy.

A moment's reflection must satisfy any one that this doctrine is neither more nor less than materialism. If all the mental affections, from sensation up to thought (and there is no stopping point from the admission of one to the admission of the whole,) are dependent on properties of nerves or of the brain, to suppose the existence of mind, soul or spiritual principle, capable of sensation, feeling or thought, is superfluous. We have no use for it in connection with the body, nor can we conceive of its enduring after death. When the nerves and brain crumble to dust, those vital endowments, dependent on their organization, disappear along with them. Yet materialistic as it is, this is the doctrine generally acquiesced in by the medical profession throughout this country and the world. The physiological works in which it is set forth, are those which are most strongly recommended by the medical professor to his class in every school, and by the medical journals to the profession at large. And were it not a fact sufficiently proved by the prevalence of errors and delusions among the learned of past times, that neither the length of

time which a doctrine has been believed, nor the weight of authority in its favor, can give it any probability which originally and inherently it did not possess, it would be deemed the rashness of temerity to call it in question. As it is, the only justification of such an attempt, when one thus ventures to oppose the united voice of the schools, and the eminent in the profession, is a firm conviction of the erroneousness of the views he controverts, and an unwavering confidence in the truth of those he espouses. And it may serve somewhat to abate the force of prejudice to which it gives rise, and counterbalance the prestige of time and authority, when it is considered, that this doctrine having been in vogue for so long a season, and unremitting efforts to unfold the truths wrapped up in it having been followed by such an utter barrenness of results as experimental physiology teaches us has followed, it is natural to suspect an error in the fundamental principle.

That this doctrine was founded on superficial grounds, and that it maintains itself rather by general consent, than by an enlightened conviction of the truths it contains, it is believed may be made apparent by a consideration of the following propositions :

1st. It is opposed to the general analogy of nature.

2d. It is opposed to the analogy of the other organs and organic systems in the body.

3d. It is contradicted by the structure of the nervous system, by the mechanical relations of its several parts to each other and to other organs, and by the nature of the causes operating physiologically to excite its functional activity, or pathologically to disturb it.

4th. It violates the law of proportion between the size of the nervous centres, and the complexity of their functions, by assigning very complicated functions in higher animals to parts, in which the same size is preserved as in the corresponding parts of lower animals, in which the analogous function is extremely simple.

5th. In order to preserve its consistency, it denies to the invertebrated class of animals mental qualities which they most certainly possess. Thus Carpenter, while he allows intelligence to beasts, birds and fishes, denies it to ants, bees and spiders, because they have no brain.

6th. The persistence of a function after the destruction of the organ on whose vital endowment that function depended, as the continuance of the power of voluntary motion after the destruction of the whole anterior part of the spinal marrow, a fact admitted, and of a positive character, is a decided refutation of the whole theory.

7th. The mechanism of voluntary motion which it sets forth is absurd.

8th. The distribution it makes of the sensitive properties throughout the nerves, is unphilosophical.

9th. It fails to account for *all* the phenomena which take place in the human body, and which are usually referred to the nervous system; such events as shock, sudden loss of vitality, and many of the phenomena of sympathy remaining unaccounted for, by it.

10th. The inconsistencies and contradictions of those who undertake to investigate and fix these vital endowments of nerves and nervous centres by means of physiological experiments, and pathological observations, are such as could not take place, did they possess the true key to the explanation of the facts which they witness.

11th. A comparison of the phenomena of association with those of instinct, will show that the apparent fixedness of the sensibilities of the specific and other nerves, can be explained as well by regarding them as mental faculties instinctively associated with physical excitements of nerves, as by supposing them due to inherent properties of the nerves themselves; and if so, the supposition of the existence of such properties is a gratuitous assumption.

12th. And with regard to the well-known fact that when the cut end of a motor nerve (so called) is irritated the muscle with which it is connected contracts, by far the strongest argument in favor of the doctrine of vital endowments, if we adopt a view of the nature of the union of the mind with the body, which has been held by many of the most distinguished ancient as well as modern philosophers, viz., "that the mind is all in the whole body, and all in every of its parts," instead of locating it in the brain or any other part; we can then conceive of a mental act intervening between the excitement of the cut end of the nerve, and the contraction of the connected muscle, on which, and not on any property of the nerve, the effect is due.

13th. Finally, of those facts which have loosely been held to prove that the brain is the organ of the mind—such as the correspondence between the size of the brain and the intellect of the species, or of the individual; the sense of fatigue in the head that follows long-continued exercise of the mind; delirium, attending an excited condition of the nervous system; impairment of the memory in disease of the brain; loss of the powers of sensation, volition and consciousness, in concussion and compression of the brain; they only serve to show a connection, perhaps fortuitous, between the functional

activity of the brain and the exercise of the mind. Sensation and volitional guidance of the contractions of the muscles are both intellectual operations; and as the activity of the brain is necessary to those, so it becomes associated with, and is favorable to, the activity of all the intellectual faculties.

E. H.

MAY 6, 1854.

ART. XXIX.—EXTRACTS FROM NOTE BOOK OF CASES TREATED IN THE STATE HOSPITAL.

Case of Fracture of the Cranium.—W. Wilson, a deck-hand on steamboat America, 28 years old, was admitted March 17th. On the night of the 16th, while lying on his mattress, received a blow from a billet of wood, inflicted by the watchman* on board the steamer America, was carried ashore sometime during the night, and left on the wharf, where he was found on the morning of the 17th, lying on a mattress, and sent at 10 o'clock, to the Hospital. Profound coma; pulse 40; breathing stertorous; a deep gash, an inch and a half in length, extending down to the left parietal bone, parallel with, and about an inch from the sagittal suture, filled with a tense coagulum, which had suspended hemorrhage. The bone was found, upon slight examination, extensively fractured—on removing the coagulum, the blood flowed freely from a branch of the temporal artery. Professor Porter removed with the trephine two sections of bone in the track of the fracture, near the occipital angle of the bone. No perceptible change of symptoms, or abatement of coma—integuments brought together by stitches, and cold water dressings directed to be kept constantly applied.

March 18. Pres. \mathfrak{D} j of calomel at 12, m. Condition about the same as yesterday; has spoken indistinctly once or twice to-day, when suddenly aroused, and swallowed some coffee.

March 19. Calomel operated freely this morning, (involuntary); pulse 56; breathing but little improved; can speak when suddenly aroused, and has taken a cup of coffee.

March 20. Pulse 56, small; no abatement of the coma; bowels moved freely yesterday evening, (involuntary); slight suppuration of the wound.

March 21. General condition unchanged; pulse 56, and small; has opened his eyes for the first time since admission. Pres. 5 grs. of calomel and 1 gr. of opium, at 9, A. M., repeat at 5, P. M. 7 o'clock, P. M., seems to be under the influence of the opium; pulse 64; is not so readily aroused, but takes coffee and gruel without difficulty; no action from the bowels; passes urine involuntarily.

March 22. Pulse 68, small; skin cool; no action from the bowels; tongue covered with a brown coat and dry in the middle; coma decreasing; answers questions satisfactorily, and opens his eyes when spoken to. Says "the watchman struck him for calling him a *Hoosier*." Appetite good; pres. 10 grs. of calomel at 9, A. M.

March 23. Pulse 56; bowels moved (involuntary) by the calomel during the night; tongue disposed to dryness, and with difficulty protruded; Skin comfortably warm and moist; wound in the scalp suppurating freely. Pres. *vj.* Dover's Powder at 8, P. M.

March 24. Pulse 54. small; skin cool; bowels moved several times yesterday evening; restless during the night; tongue coated and disposed to dryness. Says he "*feels first rate*." Pres. *xij.* grs. Dover's Powder, at 8, P. M.

March 25. Pulse 60, and small; skin cool; tongue moist and heavily coated. Slept well; seems entirely conscious; physiognomy natural; thrusts out his tongue readily, and speaks sensibly. Gums slightly sore from the mercury. Continue water dressings.

March 26. Pulse 75, small and regular; occasionally intermittent; tongue thick coated, and moist; breathing slow and regular. Bowels moved several times since yesterday morning; wound suppurating more abundantly; appetite good. Has ceased to pass urine and feces involuntarily.

March 27. Pulse 64; otherwise in "*statu quo*."

March 28. Pulse 70; tongue moist and cleaning off. Pres. *jv. grs. hyd. potas.* three times a day.

March 29. Pulse 70; tongue moist and clean; slept well; bowels moved once by injection. Con. *hyd. potas.*—laxative enema at 12, m.

March 30. Pulse 74, and regular; skin warm. No action from the bowels since yesterday 12, m., from the enema. Pres. *seidlitz powder* at 12, m., v grs. of calomel, if the powder fails to move the bowels.

March 31. Pulse 72; bowels moved twice from calomel; condition otherwise the same.

April 1. Pulse 72; bowels moved once yesterday evening; complained of pain in the forehead during the night; tongue moist, and has a healthy aspect; skin warm, appetite good.

April 2. Pulse 52, and small; bowels moved yesterday freely. Sleeps well.

April 3. Pulse 60, very small; rests well; appetite good; wound continues to suppurate freely. Remove the stitches; continue water dressings.

April 5. Pulse 60; bowels regular; sleeps well; appetite good.

April 6. Pulse 64; no action from the bowels since day before yesterday. Pres. *laxative enema* at 11½, A. M., *cathartic pill* at 8, p. m.; *seidlitz powder* to-morrow morning.

April 7. Pulse 66; no action from the bowels. Pres. *laxative injection* at 11, A. M.

April 9. Pulse 56; more volume; bowels moved once yesterday; wound suppurating freely.

April 11. Pulse 72, very small; bowels moved freely during the night, by the calomel and colocynth pills. Condition otherwise the same.

April 14. Pulse 66, regular; bowels not moved since day before yesterday. The wound in the scalp is healing rapidly; no signs of *exfoliation*. Tongue and skin healthy; appetite good; sleeps soundly. Pres. *seidlitz powder* at 12, m., to be followed in two hours by a laxative enema, if necessary.

April 19. Pulse 74, more volume; bowels moved once yesterday. In every respect the case is progressing satisfactorily;

wound in the scalp healing rapidly. Sits up, and is able to walk about his room.

April 27. Patient continued to improve until night before last. Slight mental embarrassment; yesterday in attempting to sup tea, inverted the spoon and capsized the bowl. An active cathartic yesterday morning, and repeated at night, has failed to move his bowels. A fungus tumor has sprouted up through the opening in the cranium, about the size of a pigeon's egg—soft, elastic, and pulsating, (fungus cerebri.) Apply a light compress, with strips of adhesive plaster. Pres. x grs. of calomel; repeat at 8 o'clock, this evening. Pulse 100; skin warm, tumor enlarged and tense, while straining at stool.

April 28. Pulse 75; bowels moved yesterday. In the absence of the nurse, patient tears off the dressings. Applied a bandage around the head, which he likewise tore off during the night. Applied this morning collodion, with an adhesive strip. Intellection improved; skin looks better; tongue clean and moist.

April 29. Pulse 75; bowels moved freely yesterday from enema. Apply a pledget of lint, saturated with lime water, secured by strips of adhesive plaster, and covered the head with a night-cap.

May 1. Pulse 60. Tore off the cap and dressings during the night; impossible to keep any sort of dressing on the head unless the nurse is constantly at his side. Touched the fungus with *potassa cum calce*, and coat the fungus and adjacent scalp with collodion. Laxative enema at 5, p. m.

May 3. Pulse 60; stupid; skin, especially about the extremities, cool and clammy; fungus looks black under the film of collodion, and considerably reduced in size. Refuses to take nourishment. Removed the film of collodion, and sliced off the slough; the removal of the pressure upon the fungus, by the coating of gun cotton, quickened the sensorial power, and he is quite as rational as he has been since the appearance of the fungus. Touch the fungus with nitrate of silver.

May 4. Pulse 60; skin warm; seems comfortable. Pres. laxative enema at 12, m.; bowels moved p. m. Touched the fungus with *potassa cum calce*, and covered with collodion.

May 6. Pulse 60; more stupid; increased lachrymal secre-

tion; breathing slower, and inclined to stertor; refuses nourishment since yesterday morning. Removed the slough and dressed the front half of the fungus with collodion. Suspend hyd. potassa.

May 7. Pulse 60, full; more stupid; passes urine involuntarily. *Dorsal decubitus*. Fungus grows more rapidly; suppuration more abundant; refuses nourishment.

May 12. Patient has been gradually sinking, and died to-day at 11, A. M. *Neither strabismus nor dilatation of pupi* occurred at any period of his illness.

Autopsy 10 Hours after Death.—The blow was inflicted on the protuberance of the left parietal bone. On removing the calvarium, and examining its internal aspect, the fracture extends obliquely forward, across the frontal bone, terminating at the parietal protuberance of the opposite side—and transversely backward, across the posterior portion of the parietal bone, across the sagittal suture, terminating in left parietal bone—lacking about two inches and a half of encircling the top of the skull cap. Another fracture extends obliquely backwards, about three inches, towards the occipital bone. Fungus protuberance, about one and a half inches in diameter, rising about half an inch above the surrounding cerebral surface, immediately at the point where the blow was inflicted. Opposite the site of the fungus, in the right anterior lobe of the cerebrum, on the surface of the dura mater, is a coagulum of blood $1\frac{1}{2}$ inches in diameter, and $\frac{1}{2}$ inch thick. On removing the dura mater, the surface of the brain is apparently normal; a deep abscess immediately under the seat of the fungus, extending down to the cavity of the left ventricle; substance of the brain in the immediate vicinity firmer than usual. *Right hemisphere*—surface natural in appearance, considerably more vascularity than in the left. An abscess, about the size of a ten cent piece, immediately behind the site of the blood-clot, containing a seropurulent fluid—lateral cavities contain about the normal quantity of serosity—*cerebellum* has a natural appearance, and unusually firm.

J. W. K.

REVIEWS.

ART. XXX.—ELEMENTS OF CHEMISTRY. By M. V. REGNAULT. Translated from the French, by T. FORREST BETTON, M. D., M. A. N. S. Edited by JAMES C. BOOTH and WM. L. FABER. Second edition. 2 vols. 8 vo. Philadelphia: CLARK and HESSER. 1853.

This valuable work, the reception of which from the publishers, we casually noticed in our last issue, demands more than a passing notice. Relating to a science which is commanding the best talent on both sides of the Atlantic, it is a natural expectation on the part of its devotees, that each additional new work on the subject should, to say the least, be an improvement on the preceding. To this science all the arts of life, as well as that noblest of human pursuits, *agriculture*, look with confidence for the development of those principles, which tend to their advancement. No longer immured within the walls of the University Laboratory, she is seen in the every day pursuits of man, wherever he may be found, and he is beginning to appreciate the kindly aid thus extended to him. To the farmer she points out the capabilities of his soil, enabling him to increase the products of his field to a per cent. far exceeding that which he had been accustomed to receive with the same amount of labor. To the mechanic she discloses the relation of the metals to each other, and places within his control, by means of rivets and bolts, an agent which is thus directed to certain purposes, and becomes the man of all work. By this most wonderful discovery, the STEAM ENGINE, we have a power more efficient than the combined forces of the largest and strongest animals, and more manageable than the smallest and gentlest. Here in the steam car, annihilating distance and leaping the highest mountains—there in the steam vessel, braving winds, currents, and waves, thus opening up a highway on the trackless deep for the intermingling of the people of the earth; thus promoting peace and social union. Now, descending with the miner into the bowels of the earth, and, by the light of the science which gave birth to it, brings up its vast treasures—and then applied to wonder-working ma-

chinery, converts these treasures into a multitude of various forms for different purposes. These are the fruits of Chemical Philosophy, and this science the means by which we can "put a hook in the nose of Leviathan, play with him as with a bird, and take him for a servant forever."

We rejoice, therefore, that it is incumbent upon us to bear our testimony to the value of the new work before us, assured as we are from a careful *perusal* of its pages throughout, that it is well worthy of a place not only in the library of the man of science, but upon the bench of the working man, to be his guide in his chosen pursuit.—The work opens with an introduction setting forth, in a comprehensive yet distinct manner, the several natural phenomena resulting from the operation of matter upon matter—to which follows rather a lengthy yet important chapter on Crystallography and Chemical Nomenclature. Like all the foreign works on Chemistry, no part is devoted to Electricity and Magnetism—but our author proceeds at once, after his introductory remarks, to the discussion of the metalloids. Passing by these, in which each gas is treated in a full and free manner, well illustrated—we turn over to the metals, our author's second grand division. First in this, we have a brief outline of Geology, especially with the relations of metals and metallic veins. As an evidence of the value of the work, it is only necessary to state that the discussion of potassium calls forth a description of the process for the manufacturing of saltpetre—that of sodium the manufacture of soda ash and sea salt—and of lime, plaster and alum, from their respective metals. Neither does our author overlook the chemical arts dependent on the metals, for he gives full accounts of gunpowder, lime and mortar, glass and pottery—and thus, throughout the entire work, there is a constant aim to commingle the *useful* with the *theoretical*, rendering, as we remarked, the volume as valuable to the working man as to the man of science. We extract the following, for the purpose of showing the practical character of the work:

BUILDING MATERIALS.

"The material used in building is of two kinds—natural, or building-stones, and artificial, or bricks. We shall now study only the natural material, and return to the artificial when treating of earthenware.

Generally speaking, those stones are selected for building which are the cheapest, and possess, at the same time, sufficient resistance to the action of rain and frost. Very often the preference is given to those which are light, easily worked, and will well bind with the mortar.

The preference given to any kind of stone depends essentially on the use for which it is intended; thus moles, break-waters, etc., which are constantly washed by the waters of the ocean, can be built only of very hard stone, capable of resisting the corroding action of salt-water. For the foundation of houses in damp locations, a hard stone, not likely to nitrify, is required.

Building stones may be divided into three classes, according to their chemical nature:

1st. The stone formed by the alkaline and earthy silicates such as granite, porphyry, certain trachytes, and basalts. As these stones are very difficult to cut, being extremely hard, they are used in the form of hewn stone, only for special constructions, demanding great solidity and subject to continual wear, such as sea-dykes, foot-ways, pavements, etc. Moreover, they do not bind well with mortar. Being capable of a fine polish, and often presenting beautiful shades of color, they are used for pedestals, obelisks, columns, and other large architectural ornaments.

Many volcanic rocks also furnish a material highly valued as building-stone, as possessing lightness combined with great solidity. Certain volcanic pumice-stones and scorix yield a light material, very valuable in the construction of inside arches.

2d. The quartzose rocks, found in various geological formations, also yield a good material for building. The most important of these are the sand-stones. Graywacke, the old red sand-stone, and the variegated sand-stone, furnish excellent stone for cutting.

In the tertiary formation in the environs of Paris, a quartzose rock, called *millstone* (meulière,) which, being porous and light, is nevertheless very solid, is frequently used for the foundation of houses, because it arrests with great efficacy the dampness of the earth, and cannot nitrify. The quartzose pebbles found in layers in the various strata of cretaceous rocks, are also sometimes used.

3d. The limestones furnish very valuable building material. White marble and certain colored and veined transition limestones are used for ornamental purposes, such as mantel pieces, hall floors, &c., or for monumental and artistic purposes.

The tertiary limestones and those of the jurassic formation furnish a material highly prized for cutting. They may be divided into compact and granular limestone; the first, being hard, resists wear, nitrifies with difficulty, and is susceptible of a high polish. The limestone of Chateau-Landon is of this class, and is extensively used in Paris for monuments, especially in those parts intended to be sculptured.

The ordinary building-stone of Paris is a conchiferous limestone, called *coarse limestone*. The different strata of this rock yield stones varying in value, the inferior qualities and their strata are used for *ashlar-work*.

The chalk formation also yields a moderately good building-stone—the chalk tufa of Touraine is used for building throughout a large portion of central France.

The famous *travertin* in the environs of Rome, which has been used in the construction of the greater portion of the monuments of Italy, is a fresh-water calcareous tuff, belonging to the tertiary formation.

The compact limestones may be used in building immediately after being quarried, which is not the case with the other limestones—as they are more or less porous, they must be exposed to the atmosphere for several months, or even years, in order to evaporate their *quarry water*. These stones are often very soft when taken from the quarry, and harden in the air—chalk tuff, which, when recently extracted, may easily be cut with a knife, does not become hard until after several years' exposure.

Building materials are divided into two classes, according to their form: regular material, such as hewn stone, bricks, etc., and irregular material, as rubble stones and large pebbles.

Buildings may be constructed, with regular materials, without the interposition of any substance to unite their surfaces, provided these surfaces be hewn so as to be in pretty close contact. Walls constructed in this manner are called *dry walls*. But, with irregular materials, a solid building can only be erected by interposing a substance called mortar, intended to fill the interstices, and bind the materials to each other. It is necessary that the mortar should acquire, after some time, sufficient hardness and adhesion to prevent its falling off, or being washed out by rain. Even with regular materials, a thin coat of mortar is interposed to close the interstices; but in this case the mortar is not required to fulfil the same conditions as when used with the irregular materials—it need not require the same hardness, at least with regular materials of large size."

R. O. C.

ART. XXXI.—A MANUAL OF ELEMENTARY GEOLOGY; or, the Ancient Changes of the Earth and its Inhabitants, as Illustrated by Geological Monuments. By SIR CHARLES LYELL, M.A.F.R.S. Reprint from the fourth and entirely revised edition. New York: D. APPLETON AND CO. 1853.

ELEMENTS OF GEOLOGY. By ALONZO GRAY, A.M., and C. B. ADAMS, A.M. New York: HARPER AND BROTHERS. 1853.

While glancing a few days since over the book establishment of Messrs. W. T. BERRY & Co., our attention was attracted by the title of Voltaire's *Philosophical Dictionary*; and upon opening the volume, we happened upon his account of petrified sea shells and other fossils. How very unphilosophical were his views, compared with those entertained at the present day! It might have conflicted with his favorite notions to have admitted any priority in the creation of the sev-

eral members of the animal kingdom—especially to have believed that the creation of man was the last great work of creative agency—whatever that agency might have been in his own estimation. It was far easier to believe, though it would have been hard to account for it on rational grounds, that those shells and other fossils assumed their imitative shapes in the earth, and were subsequently hardened into stone. But the light of science has discovered the true character of these fossils, as the remains of animals and plants—the monuments of earth's primeval inhabitants; and he who would now subscribe to Voltaire's sentiments on these subjects, and adopt his opinions, would at once acknowledge himself to be behind the age in which he lives.

No truer definition can be given of the science of Geology than was said by him of the *Edinburgh Review*: "It is a philosophy which never rests—its law is progress; a point, which yesterday was invisible, is its goal to-day, and will be its starting point to-morrow." It teaches that various orders and species of animals have existed and ceased to exist during those events which marked the successive gradations in the geological formations, the earth being adapted during these successive periods in all respects to the flora and fauna which inhabited it. We do not here even intimate a belief in the *Development Hypothesis* of Lamarck—a doctrine which has been revived and so popularly advocated by the author of "*The Vestiges of Creation*," for even among the early animals, as discoverable in the organic remains, the conformation and the structure were as complicated as are those of the present period—affording evidence of the existence of the same agencies of air, light, water and vapour that now act upon and conduce to the well being of the animal and vegetable worlds. The change observable in orders and species as we pass from one formation to another, was a necessary consequence upon the alteration which took place in the physical character of our planet during these successive periods. But there was not, in every instance, an entire annihilation of genera and species—many being found to pass through several formations, whilst with others all traces of identity have been obliterated when the change ensued. But it is not only

in its fossil remains that the science of Geology is commended to us as a branch of study, but also in its rock formations—in its soils—in its mineral beds—in its lifeless masses of coal. These are the resources of national wealth, and this science bestows very essential aid in their development.

It is impossible, in a short notice, to present even an outline of the benefits to be derived from a dissemination of the discoveries made by Geologists; but suffice it to say, that it is related so intimately with every department of human industry, that a course of instruction is not complete without it. To be convinced of this, it is only necessary to read carefully any one of the many treatises on this subject—especially either of those prefixed to this notice—and while much will be found to excite surprise and admiration, much more to instruct and improve.

Sir CHARLES LYELL has been an indefatigable writer, as well as explorer. The *Elements of Geology* was originally a part of his “*Principles*,” but after the publication of the fifth edition he separated them. Increasing developments, and the increased importance of the science swelled the humble “*Elements*” which we studied in the days of our pupilage, into the more stately “*Manual*.” As this science refers as well to changes that are now taking place on the earth’s surface as to those which give internal evidence of having had their origin in days long anterior to the present historic period, so our author in “*The Principles*” has confined himself to those of the former character, and in his “*Manual*” to the latter. In the one we read the epitaph which the finger of time is now inscribing upon a monument in the course of erection; in the other we see this monument completed and its epitaph written, perpetuating the history of its ancient inhabitants.

Since the publication of Mr. LYELL’S first editions of the “*Elements*,” he has made two visits to the United States—and passed over nearly its whole territory, examining the various formations, and collecting their characteristic fossils. As the result of these explorations he has inserted into the present edition of “*The Manual*,” numerous American references, and has also published the best geological map of the United States now extant. This *Manual*, of course, will find

its way as a class-book into our higher institutions of learning, while the scientific amateur will not fail to place it as a constant companion upon his table.

The work of Profs. GRAY and ADAMS is valuable as being strictly American, in all its references and localities of minerals and fossils and geological formations.

We cordially recommend it to teachers as a class-book.

R. O. C.

ART. XXXII.—HOMŒOPATHY FAIRLY REPRESENTED. *A Reply to Professor Simpson's "Homœopathy" Misrepresented.* By WILLIAM HENDERSON, M. D., Professor of General Pathology, in the University of Edinburgh. First American, from the last Edinburgh edition. 8vo. pp. 302. Philadelphia: LINDSAY and BLAKISTON. 1854.

In the notice of Professor Simpson's work in our last, the facts presented were derived mostly from the author, and our suggestions were built upon those facts.

But the title page of the work now before us proclaims that the author referred to has done injustice, been guilty of "misrepresentation," made a *false* issue. Based as our comments were, upon the data furnished by Professor Simpson, we felt bound, as an act of justice, to examine Professor Henderson's Reply, to see if the charge thus conspicuously announced upon its title, could be sustained. We have done so, but confess that, to our mind, the charge has not been sustained.

Prof. Henderson, at the outset of his work, lays himself open to censure, affording but a poor augury as to his own impartiality and "fairness" in the course of the discussion. The preface to the "second edition" commences in bad temper. He has "observed nothing in the public journals" that calls for reply, "nothing but personal abuse and party misstatements;" he has no "misgivings" as to his "statistics of acute inflammation," and "*defies*" his opponents "to unsettle a single conclusion which is recorded in that part of the work," &c. In the details of a disputed case of dysentery that follow, there is an undue display of passion, finding expression in

angry epithets. The preface to the "first edition" is still worse. Attempting to be witty at the expense of the "Professor of *Midwifery*," it commences with a vulgar, commonplace figure, becoming enough perhaps as a prelude to some gross, personal tirade, but an unhappy introductory to a medical discussion.

In excuse for the temper of his former reply, "aware" that it was "severe," and conceding even "that the lash was laid on with more than necessary good will," he compares the "persecuted party" with the strength, respectability, and exclusiveness of the "aggressors"—there was Dr. Simpson, President of the Royal College, loaded with European honors, the imperious and lordly Colleges, &c., &c.

But now, having quite demolished Dr. Simpson, and his "production," past, present, and to come, and won "ease and safety," the magnanimous Homœopath can afford to exercise forbearance towards "chop-fallen opponents," ready to "cultivate the arts of peace; in which," says he, "I, at least, hope to excel so much, that, as it was wittily said of Cæsar, when some one sneered at his baldness, 'He has covered that defect with laurels;' so" (complacently and "wittily" speaks Prof. H. for *himself*;) "so the courtesy and forbearance of all future productions of my pen shall gracefully [!] conceal the roughness of their predecessors." Nevertheless, he proceeds, in the same breath, furiously to belabor poor Dr. Simpson, even "while he groans under inflictions," accusing him of having "violated the sanctity of the grave, and insulted the dead,*—of "reckless imputations,"—of fabricating a "tissue of extraordinary misrepresentation and abuse," and so forth. Similar imputations, with offensive epithets, coupled usually with that of "*ignorance*," swarm throughout the book; indeed, the very mention of his opponent, wherever made, seems to elicit the manifestation of anger; although it is to be observed that his own name is rarely referred to in Prof. Simpson's book, and in the few instances in which it is, it is mentioned with no personal disrespect.

* Alluding, as we find in a note, to "the *dead* Hahnemann," who, he complains, "is the only person pointedly, and by name, vilified" by Dr. S.—thus couching this *admission* in the form of accusation!

As his *statements* and those of Dr. Simpson, frequently conflict, a great portion of the preface is occupied to make out superior claims to credence, "to show," to use his own words, "that where Dr. Simpson and I are at variance regarding a matter of fact, the yea or nay as to which depends on our personal authority, *I* am entitled to be esteemed by far the more likely to be in the right." Speaking of certain expressions ascribed to him, he gives the statements of Dr. Simpson "an unqualified denial, and for the *simple and sufficient reason* that for me to have uttered either the one or the other, would have been an untruth."

With his own veracity thus satisfactorily established, he proceeds at once to discredit and impeach the veracity of "Mr." Horace Green, (refusing to accord him his title,) in reference to the circumstance related by the Doctor, of a hypochondriacal lady having taken several percussion pellets, through mistake, for homœopathic globules, but which answered the same purpose, effecting a "cure." The effort in this connection at buffoonery—the punning upon names, etc., is simply *foolish*.

Here also Prof. Henderson endeavors to discredit the allegation that homœopathists not unfrequently, when active medication is required, resort to allopathic doses—and that this is really the secret of their *results* in cases where any strictly medicinal effects are produced. Since the great burden of the book appears to be to make out that Homœopathy has been unfairly and falsely represented, we may be excused for dwelling here somewhat—as a point bearing upon the question of credibility—without the necessity of extending this notice much beyond.

In reference to the individual instances adduced, in which large doses were indisputably employed, which Dr. H. evinces some anxiety to invalidate, and barely "supposes" may be true, he holds the following language:

"They may be said to prove that three medical men, out of the many hundreds, if not thousands, in the world, who now *avow* themselves homœopathists, were guilty of deceiving their patients, and were actually treating them with *allopathic* quantities, (as doses are termed when they reach or approach the poisoning potency,) while they professed to be giving only the

homœopathic, (as doses are termed without the risk of killing.) * No doubt such deception was extremely wrong—highly dishonorable and immoral—but it tells nothing against the multitude of homœopathic practitioners who do not practice any such deception.”

As an offset to this, he imputes to regular practitioners, the secret use of homœopathic remedies, averring that he has been informed by a homœopathic chemist, “that his shop is chiefly supported by practitioners who procure from him homœopathic remedies, which they distribute to their patients *disguised as allopathic mixtures.*” And he contends that far from deserting the “infinitesimal” doses, there is greater risk, through the ridicule bestowed upon the doctrine, of homœopathists being guilty “of pretending to give large doses, while they actually give the small.”

“Small doses they know, from experience, to be the best, and they re- with an exception or two, determined at all hazards to adhere to them; but it may sometimes be difficult for them to do so, and keep their foolish patient at the same time, who may have a preference, even in physic, for things he can taste and smell, like the majority of silly mankind.” p. 44.

He moreover maintains that the stress laid upon the calculations in regard to the infinitesimal, and therefore inert, character of the doses used in the practice of homœopathy, “*proves*” that its opponents “have, themselves, no confidence in the statement that homœopathists do in reality practice the deceit of which they are so shamefully accused.”

And again, in regard to the class of homœopathists alluded to by Dr. Simpson, who, though pretending to be homœopathists, act as allopathists, doctoring according to their own fancy, or the wish of their patients, either allopathically or homœopathically:—

“That Dr. Simpson knows of any such persons, I do not believe. I know a great deal more of those whom he delights to calumniate, than he does, and I solemnly aver, that I neither know, nor ever have known, a single instance of the conduct he has ventured to lay to their charge.” p. 50.

And yet Dr. Henderson presently confesses to the occasional use of medicine in allopathic doses, as aperients, in “CURABLE diseases;” and for “INCURABLE diseases” he says,

* The explanation, in foot notes, of technical terms, and the *drift* of the book, shows, equally with the above subtle parenthetical *intimations*, that it was designed for *popular use*.

"I would give whatever promises to smoothe the way a little to the not distant grave;" besides resorting to blood-letting, "to facilitate the action of my homœopathic remedies;" adding, "Give me the little I have mentioned, and the rest of your physic to the dogs." And this would seem to be the usual *practical* doctrine, whatever the theory, of homœopathy in ordinary cases, tending to natural cure,—viz: non-medication, or the discarding of all except a few indispensable remedies, and using these in allopathic doses. For if homœopathic doses were the best and most efficient, as is urged to be the "invariable law," why should not the retained medicines be the best in such doses also? And if allopathic remedies are to be used as most efficient in allaying the severe symptoms of incurable cases, why should not the like remedies be equally preferable for like symptoms in curable cases, especially as the *symptoms* are, according to the homœopathic law, the *objects* of medication? Moreover, if an infinitesimal nonentity is useful to keep up a *show* of medication where nothing is needed, why should not a "bread pill" answer as well? Why, in short, should not homœopathists adopt the regular practice, in *all* cases where medication is needed?

The evidence that this is frequently done, is too abundant to gainsay. Lately we have seen in the journals several instances upon the personal authority of the writers, and in some cases based upon the acknowledgement of the homœopothists themselves, of the use of either allopathic or homœopathic doses, to suit the taste of the patient or nature of the case. During the cholera in Cincinnati, 1849, the homœopathists gave the strongest tincture of camphor in doses of from 1 to 5 drops every three or four minutes, equal to about 15 or 20 grains in an hour; and it is well known that the noted homœopathist, Dr. Quin, had before advised large doses of camphor in this disease. A few years ago we were informed by an intelligent homœopathist, then in this city, that he "used allopathic doses when necessary," as in urgent and violent cases—those of a highly inflammatory nature, for example—where prompt and efficient action was called for.

Now, in view of the undeniable evidence to the same effect adduced by Prof. Simpson, and also in view of Prof. Hender-

son's own confessions, is it not astonishing that Prof. H. should aver and pretend to show "*proof*" that the opponents of homœopathy "have *themselves* no confidence" in their statements on this score?

Indeed, that he is fully conscious of this employment of allopathic means, would appear from his evasion of the main issue, by shifting his reply chiefly against that portion of the imputation which applies to their *secret* use.

"The charge is, not simply that large doses were used in the cases referred to—that would be a minor matter, as a man is at liberty to employ what dose he prefers—but that the doses were pretended to be *minute*." p. 45.

Now, Dr. H. must have been sufficiently aware that it is the *use* of such doses which involves the point in question—being used as an argument against the efficacy of homœopathic treatment, as explanatory of the sensible effects sometimes obtained, and to prove that many homœopathists themselves have no confidence in the vaunted "potency" of infinitesimal medication—while the *mode* of use (whether covertly or avowedly) is of secondary consideration, an incidental circumstance.

But the *probability* of using them secretly may be arrived at from the following:

The great Apostle of Homœopathy, Hahnemann, in his *Organon*, that *magna charta* of orthodox homœopathists, says, (in opposition to Dr. Henderson and some others who are abandoning his doctrines,) insisting upon a rigid adherence to infinitesimal doses:

"A medicine, even though it may be homœopathically suited to the case of disease, does harm in every dose that is too large, *the more harm the larger the dose*; and by the magnitude of the dose it does more harm the greater its homœopathicity."

He, moreover, repeatedly and unsparingly denounces, to use his own words, "the new mongrel sect who assume the honorable name of homœopathists, and even *seem* to employ medicines in form and appearance homœopathic, but used without the slightest deliberation, and when the unstable remedy does not immediately give relief," "ascribe it to homœopathy;" and who "*know how, from frequent practice, to make*

up for the inefficiency of the scarcely half homœopathic remedy, by the *employment of allopathic means*," &c.

And again, he lays down, in his preface to the *Organon*, that—

"Homœopathy sheds not a drop of blood; administers no emetics, purgatives, laxatives, or diaphoretics; drives off no external affection by external means; prescribes no warm baths nor medicated clysters; applies no Spanish flies, no mustard plasters." etc.

Dr. Black, a prominent homœopathist, lately practising in Edinburgh, says, that in the use of the very large ordinary (homœopathic) doses; "we may frequently expect a *positive increase of the disease, or even death*. The experience of such painful and dangerous aggravations, in no cases necessary to cure, led Hahnemann to employ minute doses." (*Treatise on Homœopathy*.) In the same work, he severely censures the class of practitioners, "who, viewing medicine only as a trade, a mere barter for pounds, shillings and pence, act *obsequiously, as the patient wishes; at his desire, their practice is either allopathic or homœopathic*." And Dr. Mure, a noted homœopathist, for a time President of the Homœopathic School at Rio, exclaims, relative to the conjunction of allopathy and homœopathy: "Monstrous conjunction! sacrilegious enterprise! Withered be the hand which shall attempt to realize it!"

Thus it would seem as if some homœopathists were not only in the *habit* of resorting to the mixed practice—whether *denounced* for it, or *justified* in it—but also have sufficient *motive* for doing it secretly, Dr. Henderson to the contrary notwithstanding. We must, therefore, be content to rely upon Dr. Simpson's veracity; inclining, moreover, to the opinion, that the homœopathists repudiated, as authorities, by Dr. Henderson, have fully as good right to repudiate *him*.

With the unprofessional portion of the community the impression seems to obtain that homœopathists use much stronger doses than they theoretically profess, and while some are, doubtlessly, influenced by the fear of large doses, prejudices to the regular practice, or hopes in regard to the system of dietetics adopted by homœopathists, to seek their *attendance*, with no faith in their *medication*, it is probable that the great major-

ity who are led to resort to this treatment, or to ascribe efficacy to it as a *system of medicine*, do so under this impression. The drops, powders and "little globules" are supposed to contain the concentrated quintessence of the active principle of medicinal agents, divested of their impurities, together with their unpleasantness, and quickened, it may be, by elaborate processes.* The representations of "allopathists" are of course looked upon as exaggeration and hyperbole; and we question if some medical men have not viewed them in the same light.

And here let us stop for a moment to enquire what quantity of medicine constitutes a "homœopathic" dose, i. e., according to the Hahnemannian school, and not of the "sect" whose "small doses" are, in reality, often "allopathic." — For an off-hand definition, we might describe it to be, any portion of a drug betwixt the quantity that would be altogether inert, and absolute nothingness,—and not a quantity, as Dr. Henderson intimates, differing from the allopathic only in being removed beyond the "poisoning potency" or "risk of killing"! (See quotation ante.)

The following shows the result of the computations given in the Appendix of Prof. Simpson's work, (*Homœopathy: its Tenets, &c.*) † The drugs, (as prepared homœopathically,) are attenuated either by triturating a portion with sugar (or sugar of milk,) or by diluting with alcohol, or with water; one grain, or one drop, attenuated in 99 parts of the medium, being the first, smallest, lowest or mother dilution, forming the basis from which the higher ascend — one drop or grain, only, being preserved from each for the medication of the next. For the attenuation of a whole grain, or drop, to each of the

* Hahnemann's process of "*dynamization*," for "potentising" his *dilutions*, was to shake each attenuation, in a vial, twice. Attenuations, when in the form of *globules*, are to be, moreover, subjected to several "triturations" and "scrapings," in a mortar.

† It appears," says Dr. Henderson, (page 262,) "that minute division is sometimes necessary to bestow activity on otherwise inert substances."

† The calculations, says Dr. S., were examined and authenticated by several distinguished mathematicians. Their accuracy, we believe, has not been questioned.

following potencies, supposing alcohol to be the medium, it would require the quantity expressed below in tabular form, from the tables of Prof. Simpson. *

<i>No. of Attenuation, or Potency.</i>	<i>Quantity of Alcohol required to dissolve a grain (or drop) of the Drug in each Attenuation.</i>	<i>Proportion of a grain of the drug to a drop of each.</i>
1st. — 99 drops, equal to $1\frac{1}{2}$ teaspoonsful, - - -		- Hundredth.
2nd. — 21 fluid ounces, - - - - -		- Ten-thousandth.
3rd. — 2080 ounces, or 104 pints, - - - - -		- Millionth.
6th. — 13 million gallons, or 206,000 hogsheads, or 51,000 tons, - - - - -		- Billionth.
9th. — A volume of about 14 cubic miles, or a lake of 50 fathoms deep, and 250 miles of square surface, - - - - -		- Trillionth.
12th. — 14 million cubic miles, equal to a sea six times the size of the Mediterranean Sea, - - -		- Quadrillionth.
15th. — 14 billion cubic miles, or an ocean forty-six thousand times greater than all the oceans of the earth, - - - - -		- Quintillionth.
24th. — 14 quintillion cubic miles, equal to 140 masses, each filling a sphere extending from limit to limit of the orbit of the planet Neptune, -		- Octillionth.
30th. — 14 septillion cubic miles, equal to many hundred spheres, each with a semi-diameter or radius, extending from the earth to the nearest fixed star, - - - - -		- Decillionth.

[*Homœopathy : its Tenets, &c., pp. 292 and 295.*

A single drop from any of the preceding volumes or masses, thus medicated by a single grain, would constitute a homœopathic dose of that particular attenuation. †

* The *dose* is usually one drop, (or a globule, if in solid form,) of the attenuation employed:—to be repeated, according to Hahnemann, only at long intervals—in acute diseases, several hours, in chronic cases, several days, or even weeks. Hahnemann alleges that the mere smelling of a globule (30th dilution) answers in some cases as well, or even better. “In chronic diseases, happen what might, he NEVER allowed,” says Dr. Crosiero, “this olfaction to be repeated oftener than *once a week*.”

† It may be unnecessary to add, that the drugs used are not, as might be naturally supposed, selections from the more active medicinal agents, nor powerful concentrations, but on the contrary, many utterly harmless and inert substances are employed as possessing, when highly attenuated, the most wonderful potency—such as charcoal, oyster shell or carbonate of lime, (“*calcareæ*,”) sulphur, silex or flint, coffee, common salt, etc. The array of symptoms said to be produced, and consequently, according to the homœopathic law, (*similia similibus curantur*,) capable of being cured, by

The last, or thirtieth, is recommended by Hahnemann as "*the best dose*," and is a favorite one with his disciples. But some homœopathists use still higher dilutions—the 100th, 200th, 1000th, 2000th, etc.—claiming for them superior potency. Others question the potency of the higher dilutions; among them, Dr. Henderson, who thinks there is "as yet a total want of evidence of high dilutions being more potent than the low." "But," he says, "the FACT, *that all dilutions from 30 downward, will produce an effect*, seems to me established by the EXPERIENCE

these substances, is sufficiently imposing. Thus house salt, according to Jahr, one of the most standard homœopathic authorities in *Materia Medica*, employed in doses of the 20th or 30th dilution, can cause (and cure) over 450 symptoms, its effects in chronic affections lasting 40 or 50 days; and carbonate of lime, in the 30th dilution, over 1,000 symptoms, the effects lasting as long. To illustrate, we present a few from many of like character, copied by Dr. Simpson from Jahr's *Manual*.

"SYMPTOMS PRODUCED BY COMMON HOUSE SALT.—'Rigidity of the joints, which crack when they are moved.' 'Tendency to experience dislocation, and to strain the back.' 'Paralysis.' 'Swelling of the glands.' . . . 'Frightful dreams of quarrels, murders, fires, thieves, etc.' . . . 'Typhus fever, with debility.' 'Anguish, sometimes during a storm, but especially at night.' 'Hatred to persons who have formerly given offence.' 'Awkwardness.' 'Painful confusion in the head, vertigo, with shocks in the head, and dizziness.' . . . 'Boring in the bones of the nose.' . . . 'Prolonged sensation as of hair on the tongue.' . . . 'Shocks and clawings in the pit of the stomach.' . . . 'Protrusion of hernia.' . . . 'Choking spasmodic cough in bed in the evening.' . . . 'Tearing across the loins and hips.' 'Nocturnal pains in the back.' 'Digging in the arms, shocks in the elbows.' . . . 'Burning in the feet.' 'Redness of the great toe.' 'Corns on the feet, with shooting and boring pains,' etc., etc.—(*Jahr's Manual of Homœopathic Medicine*, vol. 1, p. 386.)

"By CHALK OR CARBONATE OF LIME. . . . 'Great tendency to strain the back in lifting.' . . . 'Flaws in the fingers.' . . . 'Delirium, with visions of fires, murders, rats and mice, etc.' 'Head compressed, as if in a vice.' 'Dizziness after scratching behind the ear.' . . . 'Poly-pus of the bladder.' 'Prolapsus uteri.' . . . 'Contraction of the fingers.' 'The legs go to sleep when one is seated.' etc., etc.—(*Ib.* p. 108.)

FLINT, in the 30th dilution, produces 372 symptoms, and besides others, a train of "Moral Symptoms," as melancholy, "scruples of conscience," despair, rage, obstinacy, discouragement, moroseness, weakness of memory, &c., &c. Hahnemann, dreading its dilutions, says, the sextillionth "may be commenced with, but this only suits *robust* persons."

Jahr also gives a series of "Delusions," as among the symptoms elicited in the "provings" of certain drugs; such as of flying, "riding on an ox," driving sheep, being killed, seeing cats, eating shoes, dancing in the church yard, "that his feet are in his brain," "that *he is a goose*," &c.

OF ALL.”—(Report of Proceedings of the “Homœopathic Congress,” in *British Journal of Homœopathy*, for October, 1852.)

But it is no wonder that, in view of statistics like the foregoing, Dr. Henderson should be disposed to recede as far as possible from the “higher potencies,” and even trench on “allopathic” ground—that he should claim the right of giving *homœopathic* doses “in such quantities as suffice;” (p. 236,) contending that “if drachm or scruple doses were the safest or most efficacious, there is nothing in the world to prevent us from employing them,” (p. 258,)—that he should strive to make out that the difference here between regular practitioners “and their homœopathic brethren,” is “inconsiderable indeed,” (p. 265,) that “the dispute lies within a very narrow compass, and that, (as he continues,) the opposing parties do not differ so very much as some either ignorant or designing persons have endeavored to make the public believe.” (p. 267.)

It is no wonder that, pressed by objections demonstrable and conclusive, even to the “public” view, a vein of bad temper should pervade his reply—that, conscious of the dilemma in which he is placed, as advocate of a medical system the most irrational, fantastic, contradictory,—(and which none but the genius of a Hahnemann could have palmed off,)—he should writhe under exposition, and seek to blunt the point and ward off the force of unanswerable arguments by broad denials and angry imputations.

And yet Professor Henderson’s work affords abundant evidence of talent and learning, awakening the frequent regret that an intellect so capable of usefulness, should have been dragged down from its high sphere, to waste itself amid a chaos of unstable dogmas and incoherent dreams. Dr. Forbes, so often quoted by homœopaths for his fairness and candor, says, that in discarding homœopathy, “we are discarding what is AT ONCE FALSE AND BAD—USELESS TO THE SUFFERER—and DEGRADING TO THE PHYSICIAN,”—and he might have added, to the HUMAN MIND. “It is not surprising, says Prof. Brande, (Dict. Science and Art,) “that enthusiasts of this cast should occasionally start up; but it is remarkable that they *should find converts among persons in their RIGHT SENSES.*”

We have dwelt at some length upon this part of the book,

connected as it is with the relative credibility of Dr. H. and his opponent, because it is upon this score only, throughout the whole work, that he appears to obtain any advantage. His arguments generally are exceedingly defective and inconclusive upon the main grounds of dispute, (how could they be otherwise?) affording one of the most perfect specimens of circuitous reasoning, special pleading, and evasion, that we have ever perused.

The body of the work dwells on hospital statistics, gives a long account of the life, labors and "persecutions" of Hahnemann—and discusses the objections urged by Dr. Simpson, in the majority of which, of any importance, after a parley of words, contradictions, counter objections to "allopathy," and varied expedients, evasive and explanatory, he virtually yields the point, shrouding the qualified admission in the fire and smoke of bad irony and worse logic. He repudiates some of the most prominent authorities adduced against him, particularly Dr. Mure and Mr. Everest, ejects the Doctor's *Pediculus Capitis* from his pharmacopœia, but not without some warm expostulation, and disclaims "spiritualization" in its religious aspect, though holding fast to it in the light of material "*essences*." He repudiates several of the stoutly insisted upon "invariable" dogmas of Hahnemann, while at the same time holding up his authority as the *magnum bonum*—thus, he virtually overturns his infinitesimalism, avowedly discredits that the potency of drugs increases according to their attenuation, discards his itch-doctrine in its specific sense, (although giving the term *Psora* a generic construction to the exclusion of *itch proper*, he boldly defends it,) rejects his theory of "dynamisation," as an *ignis fatuus* that "is inconsistent with the results of observation, and lands its disciples into contradictions,"—apologizes for his dogmatism, his contempt of anatomy, his extravagant declamation, his fantastical hypotheses, his impatience of induction, his "venturous conjecture," his sophistry, and his empiricism.* But he holds stoutly to the "LAW" *similia similibus curantur*.

* Berzelius said of Hahnemann, who at one time abandoned his practice and applied himself to chemistry; "That man would have been a great

It is needless to analyze the details of the work, as it is within the reach of all who wish to examine it. It ought to be read by physicians generally, and placed by them in the hands of intelligent, non-professional readers, (and it was evidently intended for popular use,) for we believe that few well informed, unbiassed minds can read even this *defence*, without being satisfied of the delusion of the system it aims to sustain.

B. W

For sale by F. Hagan.

RECORD OF THE MEDICAL SCIENCES.

PRACTICAL MEDICINE AND SURGERY.

1.—*Prof. J. L. Riddell's Opinion on the Causes of Yellow Fever.*

To the Sanitary Commission of New Orleans :

Gentlemen,—In compliance with your resolution of Dec. 21, I have the honor to present you the accompanying records of testimony, respecting the origin and spread of Yellow Fever this year, in some of the Southern towns, as high up the Mississippi as Lake Providence.

Deep interest is universally manifested in the labors of our commission ; and all possible facilities were tendered me in the prosecution of my inquiries. My constant regret has been, that want of time would not permit me to prosecute them further.

Of course I found conflicting opinions, and now and then statements more or less contradictory ; yet from all, as well

chemist, had he not turned a great quack." While engaged in chemical labors, he professed to discover a new alkali, which he sold under the name of *PROEUM*. It was simply *borax*. Sometime afterwards, having returned to the practice of medicine, he advertised another "discovery,"—his "Infallible Preventive" of Scarlet Fever, consisting of *Bel-ladonna* infinitesimally diluted,—but did not divulge the *secret* for a long time, even to his brother practitioners, whom he supplied with it, "that," (according to Dr. Henderson,) "it might be tested by others as well as himself."

as from data previously in possession, it appears to me the following inferences are deducible :

1st. That our yellow fever of 1853 has not been personally contagious ; that the poison, virus or material cause producing it, does not emanate in an active condition from the person of the patient laboring under the disease.

2d. That the disease has been marked by characters of infection and infectious communicability, the poisonous matter (doubtless some species of living organism) maturing its germ or spores on the surface of solids devoid of life, surrounded by confined or impure air ; which germs become diffused in the impure atmosphere.

3d. Three peculiar conditions seem to favor the development of the infection. 1st. The absence of ozone, the great chemical promoter of oxidation, which absence permits the undue development of obscure cryptogamic life. 2d. Abundant emanations from decomposing and disintegrating organized matters, complex products, gaseous, liquid and solid, the pabulum or blastema of cryptogamic growths. 3d. The presence of the specific organism, whose perfected spores constitute the material cause of yellow fever.

4th. That the towns and plantations of the Southwest have this year derived their yellow fever from New Orleans.

5th. That although black vomit fevers or types of yellow fever may perhaps originate in this region, yet that the germs of our epidemic of 1853, have probably been derived from countries further South.

6th. That the mixture of equal parts by weight, of black oxide of manganese, sulphuric acid and water, which in the cold will continue for many days to develop ozone, promises to be the most convenient, most economical and most efficient disinfectant ever used ; and therefore deserves hereafter a fair trial.

7th. It is proper and feasible for New Orleans to have some kind of quarantine in certain months of the year, which will exclude filthy persons, filthy clothing and filthy ships, until they are fumigated ; and goods from West Indian, South American and Mexican ports until they are fumigated.

8th. The city should be kept cleaner than heretofore, by efficient drainage, and sanitary regulations carried into effect.

9th. Legal ordinances should be framed and carried into effect, to prevent the undue huddling together of human beings within the limits of the city.

Respectfully,

J. L. RIDDELL,

Member of the Sanitary Commission of New Orleans.

N. Orleans, Jan. 1, 1854.

[N. O. Med. and Surg. Journal.

2.—*The Practice of Medicine in China.*

In the Ky. Med. Record, (April,) we find translated from *L'Union Medicale* some remarks copied from a Russian journal, from which it appears that in China whoever chooses practices medicine, no course of instruction, nor examination being necessary. In the unimportant towns "the earliest inhabitant is the astrologer and doctor. Go in any street you please, on all sides, signs are hung out at the windows and doors with the name of the doctor and gratuitous certificates of friends who boast of his talents;" the profession being usually composed of "dismissed functionaries, superannuated apothecary cubs, broken merchants, some tourists, chroniclers of marvellous events, &c."

"These fellows sell all sorts of secret remedies, plasters, pills, powders, &c. They expose their merchandise in public places, in the temples and streets, and endeavor by fine speeches to extort money from the passers-by. Some inventors of a plaster that cures all evils, have large colored pictures, with which they demonstrate the anatomy of the human body. Others practising acupuncture, establish themselves at the crossings, blow in their instruments, arrange their *stalls*, and when a crowd collects, they announce that they are from such and such a province, or of such a family, that they are descendants of the celebrated acupuncturer, Li, and that they have at last discovered that spot on the human body where bleeding can be practiced to the most advantage for the cure of all manner of disease.

"The oculists arrange before them a little table where hang images of two enormous eyes, with the nomenclature of the diseases which may affect the organ of vision. Many of their brother oculists prefer to adopt the proceeding of the celebrated oculist of their country who paraded at fairs mounted on a black ass, the saddle of which served as a counter for displaying his drugs. The dentists are surrounded with trophies of their art—masses of extracted teeth, which are not always human. It is an odd thing that this latter class are noted for a complete taciturnity; the others are prodigiously loquacious."

3.—*Blood-Letting in Mental Disorders.* By PLINY EARLE, of New York City.

PROPOSITION. — To what extent, in regard to both frequency and quantity, is the abstraction of blood required in the treatment of insanity?

After a full and careful exposition (*American Journal of Insanity*, May,) of the views of other writers, and of his own, Dr. Earle sums up as follows :

“A reply to the proposition at the commencement may now be attempted. It is evident, however, from the very nature of the case, that no positive, definite answer, couched in terms as fixed as figures represent numbers, can be given. It must be merely approximative. I shall endeavor to convey it in a series of facts, truths or inferences, which I hope are fairly deduced from the substance of the foregoing pages.

“1. Insanity, in any form, is not, of itself, an indication for blood-letting.

“2. On the contrary, its existence is, of itself, a contra-indication. Hence, the person who is insane should, other things being equal, be bled less than one who is not insane.

“3. The *usual* condition of the brain, in mania, is not that of active inflammation, but of a species of excitement, irritability, or irritation, perhaps more frequently resulting from or accompanied by anæmia, debility, or abnormal preponderance of the nervous over the circulatory functions, than in connection with plethora and enduring vital power.

“4. The excitement, both mental and physical, produced by this irritation, can, in most cases, be permanently subdued, and its radical source removed by other means, more readily than by bleeding.

“5. Yet insanity may be co-existent with conditions,—such as positive plethora, a tendency to apoplexy or paralysis, and sometimes sthenic congestion or inflammation, which call for the abstraction of blood. Therefore,

“6. Venesection in mental disorders should not be absolutely abandoned, although the cases requiring it are very rare.

“7. As a general rule, *topical* is preferable to *general* bleeding.

“8. In many cases where the indication for direct depletion is not urgent, but where blood-letting, particularly if local, might be practiced without injury, it is safer and better to treat by other means, equalizing the circulation and promoting the secretions and excretions.

“9. The physical conditions requiring blood-letting more frequently exist in mania than in any other of the ordinary forms of mental alienation.

“10. Insanity following parturition, other things being equal, is to be treated by bleeding less frequently than that which has its origin in other causes.

“11. If the mental disorder be the direct result of injury to

the head, the treatment must be directed to the wound, or its physical effects, not specially to the psychic condition.

"12. In many cases where insanity is accompanied by typhus symptoms, and in some where the aspect is that of acute phrenitis, active stimulants alone can save the patient, and direct depletion from the circulation is almost certainly fatal."

MEDICO-DENTAL SCIENCE.

4.—*Catalepsy from Toothache.*

A case is related in the *Stethoscope* (April) by Dr. G. W. Huton :

Willis, a plow-boy, (October last,) was complaining of toothache early in the morning : half hour after commencing work, was observed "lying a short distance from the plow, apparently dead, speechless and motionless." He was carried to the house, nearly a mile, and the doctor (five miles distant) sent for. In the belief that the effect might be produced through the dental nerve, the tooth was extracted ; when the boy "immediately got up and expressed himself as well as ever, and has continued well since." He "had been an unusually healthy boy, and had never had a physician to see him before."

5.—*Cure of Toothache by Emetics.* By CESAR FREDERICQ, of Ghent.

The pain caused by a carious tooth, observes the author, is sufficient to induce the sufferer to try every means for relief. Of all topical anti-odontalgics, creasote, as a cauter, appears to me to possess most advantage. But besides these remedies, there is one too much neglected, in my opinion : I mean, the use of emetics. Ipecacuanha, given in a vomitive dose, in case of toothache, has been followed by a success wholly unexpected. It answered even in cases where the neuralgia has remained after the extraction of the tooth. Emetics constitute a valuable resource in cases of odontalgia without caries. There are many varieties of toothache. It may be symptomatic of other affections, or it may be produced by an ephemeral cause. Commonly the pain is attributed to the caries ; but, if so, why should not the pain be permanent in a carious tooth ? Why do not people suffer continuously ? Some determinate cause must be at work for the production of pain ; and this varies considerably. The author believes that gastric disturbance

often coincides with odontalgia, and that the close sympathy which exists between the stomach and the brain, explains why a powerful impression made on the former should exert an influence on the nerves of the head.—[*L'Observateur des Sciences Médicales.*] *London Lancet.*

[In cases where creasote is useful, i. e. where the nerve is exposed to irritants, emetics can be of little avail except temporarily as a counter irritant. In such cases, arsenous acid, “as a cauterly,” is always efficient, being combined with morphia and creasote. The nerve of a tooth being dead, and the pain arising from alveolar abscess or its antecedent, a cathartic, for the constitutional remedy, is generally preferable to an emetic. Indeed, where toothache is treated constitutionally, by remedies addressed to the *primæ viæ*, whatever its direct local cause, if aggravated by gastric disturbance, *abstinence* and *laxatives*, are properly indicated, (with topical applications suited to the case,) though an emetic answering the same end, may, in certain cases, be substituted with advantage. Where the pain is properly, purely neuralgic, from general nervous irritation, (in which, of course, creasote and the like are wholly useless,) a “powerful impression” on the stomach may be effective, (at least temporarily,) by diverting the irritation, or, perhaps, benumbing the nervous sensibility of this organ, supposing it to be seat and source of the irritation.]

[The last of our Dental exchanges are filled chiefly with the addresses, &c., before the colleges, in which the claims and advantages of these institutions are strongly set forth, &c. We do not find, in these dissertations, practical, scientific or historical information, of sufficient interest to make abstracts from them.

The “crystal” or sponge gold is the principle thing attracting much attention in the journals at the last dates. We subjoin extracts from several articles.]

6.—*Crystal Gold—Advantages and Objections.*

Dr. C. W. Ballard, in the *Dental News-Letter*, commends crystal or sponge gold, as an article for filling teeth, from the following considerations:

“The same force will make a harder and more solid filling of it than if gold foil were used. Its plasticity enables the operator to fill shallow or saucer shaped cavities with greater ease, thus doing away, in a great measure, with the necessity of removing sound dentine or enamel in order to find a sufficient hold or stay for the ordinary filling. This I consider of

great importance, as it leaves so much more of the natural organs; in fact, there is just so much more of the teeth saved. The ease with which separate masses of the gold are welded together under the condensing instruments is another valuable property. It enables the operator, after thoroughly packing a thin layer in the bottom of the cavity, to pack another layer upon it. The two, uniting completely, forming, if properly worked, a solid mass of the metal. These layers can be thus added until the whole cavity is filled by what is thus rendered one solid piece of gold, *as solid and compact at the bottom, sides and centre, as it is upon the surface.* Of course, a filling possessing these requisites should finish up well; and this can really be finished up beautifully, though in this respect it will not surpass foil when worked by skillful hands, unless it may be in the durability of its brilliance, which I believe will prove to be the case in consequence of the greater solidity of the mass.

“These preparations are admirably calculated for filling compound cavities. Where the decay has extended to more than one side or surface of the tooth, such cavities can be filled and the form of the tooth restored with greater ease and security than with foil.”

Of the objections he says:

“They are more fallible than numerous; some are very trifling, though seriously urged, viz: 1st, *it is too expensive*; 2d, there is too great waste; 3d, it will look badly in a front tooth when the walls of the cavity are composed only of enamel; 4th, a dentist will have to learn to fill teeth over again; 5th, an entire change of instruments will be required.”

[In remarking on Dr. Ballard's communication, Dr. White, one of the editors of the News-Letter, says:]

“The first that we used did not impress us with any more interest than to suppose that it would only be an experiment; but from learning more about it, and the character of the preparations being much improved, we are now of opinion, that it may yet be a most important auxiliary to our present means of arresting the decay of the teeth. It would seem that it needs great skill and care in its successful employment as a substance for plugging, and hence it has been urged, that in the hands of the unskillful, it will be less successfully employed than foil, and its use subverted by the unprincipled; but this is more than begging the question. Give it a thorough investigation and trial, and decide upon what its real merits may be in honest hands. We cordially invite the experiments and views of the profession through the columns of the News Letter.”

Dr. Townsend, speaking of the article, in the same journal, commends it to consideration. He remarks :

"To test the relative amount of gold which could be put in a given space, I filled a cylindrical cavity in a piece of ivory, so prepared, that being filled from the larger end of the tube, it could be forced out readily from the smaller ; then, after filling the same as tightly as possible with foil, and weighing the two fillings, found the crystal filling the heavier by one-fifth."

" * * * * I do not think sufficient time has elapsed to prove incontestibly its usefulness, or its superiority over foil in those cases where the difficulty of using foil is considered insurmountable ; nor do I think it will ever supercede the use of foil as a permanent filling. Some of its best qualities for the purpose of filling weak teeth, also make it very easy to fail in making a perfect filling. Pressure upon the surface will not press it out laterally, and by so doing force it closely to the walls of the cavity. Each piece adheres to that beneath it by direct packing ; and so, the very property which constitutes its safety makes it liable to be imperfect around the edges of the filling. It is necessary to pack all around the edges and make them secure, and fill the centre last. A different kind of instrument is necessary, having a rough end, sharply cut or serrated ; and with a little dexterity in its use the gold can be taken upon it and placed in the cavity without the use of forceps. There are three makers vying for excellence in its manufacture : White, of Utica, of which I have used three ounces ; in the last portion perceive a great improvement in adhesiveness, and consider it quite equal to any I have seen. Watts, also of Utica, N. Y., a chemist by profession, has been very successful in the manufacture of the article, and his gold is perhaps equal to any offered ; and Taft & Watt, of Zenia, Ohio. These gentlemen are practising dentists, and I am told intend to give the recipe to the profession when they have perfected it."

In the *American Journal of Dental Science*, (April,) Dr. Dwinelle, writing on the subject, describes the following method of preparing the sponge gold for use :

"With a sharp blade we cut off from the cake of gold a sufficient quantity for our present purpose ; this we anneal thoroughly with an alcohol lamp, and then spreading it upon a clean paper before us, we cut it up into fragments and pellets best adapted to the cavity into which it is to be introduced."

"To test its *malleability*," he says, "we took a large plug of gold formed in the manner just described, laid it upon an anvil, and with a hammer beat it to flatness ; annealing it, we

passed it through a rolling mill, when it was formed into plate, as perfect in all its characteristics as any plate made of pure gold.

"To test its *ductility*, we took a similar plug, formed as before, and drew it out into wire as fine as No. 80, Stubbs' plate." * * * *

"Although we consider Dr. Watts' sponge gold indispensable to our practice, yet we do not think it will ever entirely supersede the use of gold foil. It can often be used to great advantage in combination with gold foil. In large stoppings it possesses great advantages over foil, from the facility with which it can be introduced, and consequent freedom from the fatigue which ever accompanies long operations."

Dr. Blandy, in the same Journal, remarks of its use at the Infirmary of Baltimore Dental College, where he instituted a series of experiments with it, that, at first, much difficulty was experienced from its crumbling in the mouth, to prevent which requires great tact and skillful management.

"But this inconvenience and loss decreased day by day, as the operators acquired experience and familiarity with the use of the article, until finally beautiful fillings were made with it even in the approximal surfaces of front teeth; but I am compelled to say that in the latter class of fillings, such result was only obtained at the expense of a greater amount of labor than is required with foil, and also with considerable more waste of material."

"No one," he remarks, "need expect in his first attempts to use it, to be able to do so to his entire satisfaction. Nearly as much tact and experience are required for its skillful management as is needed to make a good filling of foil."

Dr. Blandy is "disposed to believe it will prove an invaluable acquisition to dental practice. Indeed," he continues, "I almost feel warranted in the assertion that with an equal amount of labor better fillings can be made with it in the grinding surfaces of the molar and bicuspid teeth, and in large cavities, easy of access in the approximal surfaces of most teeth, than with foil. But in small cavities, and especially in the approximal surfaces of teeth, not easily reached, and when partially covered by the edge of the gum, foil can certainly be used with much greater facility and certainty."

[We regard the article a valuable acquisition, but believe to derive the full advantages of it, will be found to require in many cases *more* skill and *more* time than foil. With sufficient pains, however, we are satisfied that cases occur in which a better filling can be made with it than is possible with foil. The extra labor and expense should certainly be

no objection. We have used only of White's, of Utica, N. Y., and Taft & Watt's, of Xenia, Ohio. The former is the more plastic, the latter more coherent and of brighter color, though harder. It would be well to have both kinds at hand to suit different cases.]

7.—*Dental Education,*

Dr. J. S. Rock, in a communication to the Boston Medical and Surgical Journal, under this head, closes thus :

"The man who treats symptoms, as such, is an empiric ; while the one who labors to remove the cause is a philosopher. The one noticing pain in the head and face, immediately prescribes for neuralgia, while the other patiently challenges every part of the constitution to discover latent inflammation or local irritation, and having found it, proceeds at once to remove it—knowing full well that the effects may be expected to subside, when the cause has been removed. The former is perfectly satisfied that the pain and soreness in a sound tooth result from extosis, and proceeds at once to extract it ; while the latter, diligently seeking the cause, ascertains the pain to be sympathetic, and arising from a gravid state of the uterus. This habit is necessary at every step of our professional career. And not even in the simplest cases can we efficiently discharge our duties to our patient and ourselves without it. It is the very basis on which the practice of our art rests. The cultivation of it is raising our profession to the dignity of a noble art ; the absence of it would reduce us to the position of charlatans."

PHYSICAL SCIENCE, &c.

Journal of the Franklin Institute : Devoted to Mechanical and Physical Science. Edited by JOHN F. FRAZER. Philadelphia.

The May No. of this excellent periodical contains—illustrative of the article "Rough Notes of an Exploration for an Inter-oceanic Canal Route by way of the Rivers of Atrato and San Juan, in New Granada, S. A., by John C. Trautwine, Civ. Eng., Philada."—four beautiful colored scenic lithographic engravings. We extract and condense from the Journal the following items of general scientific interest.

8.—*Electro-Deposition of Aluminium and Silicium.* By GEO. GORE, ESQ.

Mr. Gore enclosed to the Editors *Lond. Edinb. and Dublin Philos. Magazine*, March, '54, two specimens of sheet copper, one coated with metallic aluminium and the other with silicium, by electro-deposition process, which he describes thus :

“To obtain the aluminium, I boiled an excess of dry hydrate of alumina in hydro-chloric acid for one hour, then poured off the clear liquid, and added to it about one-sixth of its volume of water ; in this mixture I placed an earthen porous vessel containing one measure of sulphuric acid to twelve measures of water, with a piece of amalgamated zinc plate in it. In the chloride of aluminium solution, I immersed a piece of copper of the same amount of immersed metallic surface as that of the zinc, and connected it with the zinc by means of a copper wire, and set it aside for several hours ; when on examining it I found it coated with a lead color deposit of aluminium, which when burnished possessed the same degree of whiteness as platinum, and did not appear to tarnish readily by immersion in cold water or in the atmosphere, but was acted upon by sulphuric or nitric acids, either concentrated or dilute.”

With the apparatus kept quite warm, and using a copper plate much smaller than the zinc, the deposit appeared in much less time, sometimes in less than half a minute. A quick deposit was obtained from a solution of “pipe-clay” in boiling hydrochloric acid ; also from a strong aqueous solution of acetate of alumina.

The deposit of silicium was obtained¹ by a similar process, from an aqueous solution of monsilicate of potash, (1 part silica and $2\frac{1}{2}$ carbonate potash fused together,) 40 grs. to the oz. of water ; “the process being hastened by interposing one pair of small Smee’s battery in the circuit.”

9.—*On Aluminium and its Compounds.* By M. DEVILLE. (Lond., Ed. and Dub. Ph. Mag., March, '54.)

By a modification of Wohler’s process for obtaining aluminium in powder, says M. Deville, “the decomposition of the chloride of aluminium can be regulated so as to produce a temperature sufficient for the particles of the metal to agglomerate into globules. If the mass composed of the metal and chloride of sodium, (sodium is preferable to potassium,) is exposed to a bright red heat in a porcelain crucible, the excess of chloride of aluminium is expelled, and there is left a saline mass with an acid reaction in which are disseminated more or less large globules of perfectly pure aluminium.”

This metal is silver white, highly malleable and ductile, and when wrought has the tenacity of iron: is hardened by hammering, and re-softened by heating. Fusing point about like that of silver: specific gravity, 2.56: can be cast and melted without oxidizing: is a good conductor. It is not affected by moist or dry air; water, cold or boiling, does not tarnish it, nor sulphuretted hydrogen. "It is not acted upon by nitric acid, weak or strong, or by weak sulphuric acid, employed cold. Its true solvent is hydrochloric acid, with which it forms chloride of aluminium. Heated to redness in hydrochloric acid gas, it furnishes dry volatile chloride of aluminium."

10.—*Railroad and Steamboat Accidents compared.*

The *Cincinnati Railroad Record* of April 6, 1854, gives from the *New York Herald* a table of all the railroad and steamboat accidents which have occurred from the 12th of Jan., 1853, to date—the total of which is as follows:

In 1853, the total number of *Railroad* accidents amount to 138.—Persons killed 227; wounded 483. *Steamboat* accidents, 31.—Killed 359; wounded 1858. In 1854, (to April): *Railroad*: Accidents 190; killed 268; wounded 624. *Steamboat*: Accidents 48; killed 268; wounded 225.

"From this table," says the Journal, "we gather that the number of accidents upon railroads has been 396 per cent. in advance of those upon steamboats. The number of wounded upon railroads has been 270.07 per cent, in advance of those from steamboat accidents. While the number of deaths resulting from steamboat accidents is 260.50 per cent. more than upon railroads."

11.—*On the Spheroidal State of Water in Steam-boilers.* By A. NORMANDY, Esq.

Mr. Normandy is convinced that water frequently assumes the spheroidal state in steam-boilers, and believes this is a fruitful source of explosion. (Lond., Ed. and Dub. Phil. Mag.) From the facts detailed in his communication he deduces:

"1. That the heating of surfaces previous to the introduction of water is not necessary to produce the spheroidal state.

"2. That many boiler explosions may be referable to that condition.

"3. That all boilers which offer an extensive surface to the

heat, that is to say, all boilers with internal flues, are pre-eminently liable to explosions from this cause.

“Earthy deposits in all kinds of boilers are favorable to the production of this dangerous phenomenon.”

12.—*Improvement for Making Varnishes.*

In the Journal of the Franklin Institute for May, among the list of patents, is one under this head. It is stated that, “by exposure of the crude or natural liquid turpentine of the ‘pinus abies,’ or ‘pinus silvestris,’ to the action of air and light for several weeks it becomes hard and brittle, and otherwise changed to the article known as ‘gum thust,’ or ‘gum sass.’” By combining this article with the essential oil of turpentine and treating the mixture (after the manner “specified”) the result is a varnish thought enough better than usual to get out a patent for the process of making it. w.

MEDICAL INTELLIGENCE AND ITEMS.

The Am. Med. Association met at St. Louis, May 3d; a large delegation present; adjourned to meet in Philadelphia, May, 1854.

Officers elected: *President*—Chas. A. Pope, M. D., of Mo.; *Vice Presidents*—E. D. Fenner, M. D., of La., N. S. Davis, M. D., of Ill., Wm. T. Wragg, M. D., of S. C., and John Green, M. D., of Mass.; *Secretaries*—E. S. Lemoine, M. D., of Mo., Frank West, M. D., of Pa.; *Treasurer*—D. F. Condie, M. D., of Pa.

At the Am. Asso. for the Advancement of Science, held in Washington, May last, Dr. Torrey was elected *President*; Walcott Gibbs, *Permanent Secretary*; Mr. Elwin, *Treasurer*; Lawrence Smith, *Recording Secretary*. The next meeting to be held at Providence, Aug. 16, 1855.

Dr. F. Peyre Porcher, of the *Charleston Medical Journal*, returned from Europe some two months ago. His contributions from abroad to that eminently high-toned and able journal are deservedly held in great repute. While in Paris, he succeeded in securing several distinguished contributors, as well as exchanges with the most valuable Parisian and Italian journals.

Gratuitous Medical Attendance in France and Spain.—“The Emperor Napoleon has just established a system in Paris, whereby the poor can receive gratuitous medical attendance at their own houses. One hundred and fifty-nine medical attendants have been employed for this purpose, and

are to receive for their services from 600 to 1000 francs per annum."—*Boston Med. and Surg. Jour.*

The same journal of later date, publishes from the *London Times*, the substance of a Royal decree issued in Spain :

"Every town and locality in the kingdom are in future to be provided with physicians, surgeons and apothecaries, whose duty it will be to dispense medical aid to indigent classes, and any other persons who may require attendance." Their salary is to be proportioned to the population, wealth, &c., of the district; and "they will be entitled to a pension after practising thirty years in the same district." The free exercise of the profession by other legally accredited persons is not interfered with.

New Ethnological Works.—A correspondent to the *Buffalo Med. and Surg. Jour.*, speaks of an elaborate work entitled *Crania Britannica, or Delineations of the Skulls of the Aboriginal Inhabitants of the British Islands*, etc., about to be published in England. It is to be copiously illustrated with lithographic plates, drawn, wherever possible, from the crania themselves of the size of nature.

Messrs. Nott and Gliddon have produced their work on the "Types of Mankind." It is a large volume, close letter press, illustrated with many wood cuts and several lithographic plates, and displays great research. Taking bold ground not only against the unity of the races, but also against the scriptures, it portends much warm discussion.

Prof. T. Romeyn Beck, who, since the death of Dr. Brigham, has edited the *American Journal of Insanity*, announces his withdrawal from the editorship, in consequence of advancing age and more imperative avocations. Prof. Beck's great genius has made its impress upon the scientific world, and will ever claim profound respect. Although his withdrawal will be felt as a great loss, we doubt not his successor will maintain the Journal's high character for ability and usefulness.

The Medical Society of Va., at its late meeting, proposed a good word for the *Virginia Medical Journal*, provided it would pledge itself not to attack the Society's organ, the *Stethoscope*. The Journal declined the "pledge," and with it the compliment. The Society is certainly out of its legitimate sphere seeking to trammel an independent press,—a move that suggests some fears for the "Stethoscope."

Dr. Nelson, of the *American Lancet*, has associated with him "two gentlemen of experience in the establishment of a School of Practical Medicine," viz., Drs. Edward Kane and Prof. Henry Erni—in the village of Plattsburgh, N. Y.: the first session to open June 14th, and continue eight months.

New Hospital in Cincinnati.—"An appropriation of \$80,000," says the *Western Lancet* for May, "was made by the City Council of Cincinnati, on the 5th instant for the immediate erection of a new hospital on the grounds so long occupied by the old Commercial Hospital." * * * "It is the purpose of the council to erect an extensive and magnificent structure, supplied with every comfort and convenience for the sick, in accordance with the most advanced improvements in modern architecture.

The grounds will be laid out with shaded walks and grass plats, which shall be as delightful an ornament to our parkless city as they will prove an attractive home and grateful blessing to the unfortunate and afflicted."

The Tennessee Legislature at its late session, appropriated \$7,000 to the State Hospital of Tennessee, Nashville, (or \$3,500 yearly for two years,) and \$10,000 to the Memphis Hospital.

Prof. J. M. Safford was appointed State Geologist of Tennessee, by the last Legislature at a salary of \$1,500 per year.

Spiritualism.—A paper has been started in N. York, called the "Christian Spiritualist."—It professes to hold to Revelation as the centre and basis of the 'new light.' It were as well this delusion remained with skeptics and infidels;—enlightened Christianity, we imagine, has no need of a belief in demonian influences, ghosts, hobgoblins and apparitions, suited to the dark ages, to which modern "spiritualism" is tending.

Anatomy Bill.—The bill legalizing dissections in New York, has become a law. It was violently opposed, through the public press, by a few eminent men, in appeals to prejudices and religious sensibilities. These appeals met with deserved rebuke, as uncalled for, especially from the Buffalo Medical Journal, and the American Medical Monthly, both of which inveigh strongly against the charge of heartlessness, materialism, infidelity and kindred slurs from the "clergy," cast upon the profession.

"We do not claim," says the *Monthly*, "that of our profession (we do not include in its ranks the half-educated and cheating empiric) all the members are free from scepticism and error. But what we do assert is, that they have not had, neither do they now have occasion to fear comparison, in these respects, with any class of the community; and therefore the jibes and sneers, so freely bestowed upon us by other educated men, are as undeserved as they are unkind. When men, as cultivated, as pure, as refined, as wise as any, claim that, for the study of their science and the good of the public health and morals, there is need of the study of anatomy, and point out the best way, in their opinion, for accomplishing it, it is neither in accordance with sound logic nor Christian principle for men of education and influence to point the long finger of scorn at them, and stir up the less-thinking populace by the cry of Ghouls, Vampires and Infidels."

Medical and Surgical Aspect of the Crystal Palace.—In the report of the committee of the N. Y. Academy of Medicine, published in the *Am. Med. Monthly*, the following, among other articles, are favorably mentioned. An instrument for seizing the capsule of the lens. A suction needled for removing the aqueous humor. Both invented by M. Luer, and both regarded to be of practical utility. A tube used in laryngotomy; by means of valves enables one to speak without difficulty. Mechanical leach: the cut is made by merely pulling a string; suction produced by a glass tube and india-rubber valves moved by a screw. Instruments for staphyloraphy, intended to sew the cut edges together. A double gouge forceps for cutting bone without breaking. A rotation saw, moving with facility in various directions by means of a ball-and-socket joint. Several orthopædic apparatus, useful also for torto-collis, &c.

Dentistry at the World's Fair.—There was much complaint in regard to the awards upon dental articles. It appears these were not only unfairly excluded from the higher class of awards, but that the report of the committee on Dentistry was modified and added to without due respect to the committee, or to justice in the bestowal of prizes. In the last *Dental News-Letter*, Dr. E. Parmly gives an expose of the affair; and the *N. Y. Medical Gazette* (April) contains a letter from Dr. J. Trenor, Chairman of the Committee on Dentistry, conveying a strong censure to the Chairman of the Jury on whom the fault appears to rest.

New Editorial Arrangement.—A prospectus of the Va. Medical and Surgical Journal announces, that, in consequence of the removal of Dr. Otis to another State, the Journal will hereafter be conducted by his late associate, Dr. James B. McCaw, of Richmond, and Dr. J. F. Peebles, of Petersburg, who are now the proprietors of the work. This connection, it is thought, will "advance the object which its conductors have ever had in view, of rendering their work the exponent of the whole profession of Virginia, by depriving it of all semblance of sectional character and freeing it from every local influence." Dr. Otis still holds the position of Corresponding Editor. Its claims to support are thus laconically summed up: "It is the offspring of private enterprise; it is unconnected with any association or local institution, and it is designed to be the independent advocate of the rights and interests of the entire medical public."

This journal, the tone and character of which claim admiration, the profession in Virginia ought to be proud to cherish. It is a noble testimony to the zeal, industry and attainments of its founder, Dr. Otis.

From the Minutes of the Georgia Medical Society, we find that the difficulties between the Society and Dr. H. A. Ramsay, of Ga., have been "amicably and honorably adjusted," in consequence of the following "Retraction" of the latter:—

"Believing that the various charges of cliqueism and corruption, which I have from time to time preferred against the Medical Society of the State of Georgia, have had their foundation in a misconception of what has in fact been the action of that body in reference to me and my publications, I respectfully beg to say that I have done the association injustice, and hereby unconditionally recant all matter which may be found in a Pamphlet issued by me (in the form of an Address to the Medical Profession) in 1852; in an Essay designated the 'Neurological Appearances of Southern Typhoid Fever in the Negro'; as well as in any anonymous publications that I may, at any time, have penned, which may be considered as disrespectful or offensive to the Society. H. A. RAMSAY.

"Macon, Ga., April 12th, 1854."

Prof. C. A. Harris, of the Baltimore College of Dental Surgery, has, we understand, a second edition of his Dictionary of Dental Science in process of publication.

Prof. Roux, the 'Nestor of French surgeons,' died in Paris, March 23d, in the 74th year of his age.

Legacies to Medical Institutions.—Dr. G. C. Shattuck, who some time ago donated \$14,000 towards sustaining the professorship of Morbid Anat-

omy in Harvard University, and who died in Boston, March 18th, in the 71st year of his age, has left by his will \$10,000 more to the same institution. He has also given the income upon certain stocks for three years, amounting in all to about \$10,000, to the Mass. Medical Society; besides legacies of some \$40,000 to charitable and religious societies in Boston.

Another death from Chloroform is recorded in the *London Lancet*.—The patient was a woman, aged 40, who was to be operated upon by M. Richard of Paris, for uterine polypus. Although dissuaded by her surgeon, on account of previous loss of blood, she persisted in being anæsthetized. After a few minutes' inhalation, she became excited and required to be held. "She was then turned to the side of the bed, and hardly had the surgeon disposed his ligature, when he was told by the assistant, to whom he had given charge of the chloroform, that there was no pulse. All the usual means were used for an hour, but the poor woman could not be revived."

Cholera in Nashville—A Slight Error.—The Boston Medical Journal of June 7th, states: "The Cholera has made its appearance in Nashville, Tenn., 15 persons having died from it in one day." The first report of Cholera through our city papers, May 30th, announced *fifteen deaths since its first appearance* on about the 26th, (8 or 9 occurring on the 28th); whence, probably, the Boston Journal's mistake. Up to the present, June 16th, there have been in all some 45 deaths from the disease—not over three, however, in any one day having been reported since the announcement of the 30th ult. *

The 7th volume of the N. Y. Dental Recorder commenced under the exclusive control of Dr. Hill, of Norwalk, Ct.,—Dr. Allen retiring on account of bad health. The Jan. No. evinced its usual spirit, since which we saw no more of the work until the May No., which has just come to hand increased in size and printed on larger type. w.

* Since the above up to June 23d—when this form goes to press—there have been some 18 or 20 deaths from Cholera, the greatest number occurring on the 21st, viz., 7, of which 5 were in S. Nashville. Yesterday there was but one death from the disease reported.

The disease is regarded very amenable to treatment if taken at the start. Opium, calomel and camphor constitute the main reliance with most of our physicians; some omit the camphor. We understand that some have used the dilute sulphuric acid, and with marked success, employing with it calomel and opium as called for. This remedy, in large and frequent doses, was recommended for cholera and choleraic diarrhæa by Mr. Buxton, of Westminster, in the summer of 1851. Dr. Fuller (*Med. Times and Gaz.*, Jan., '52, and subsequently,) extols it as almost a specific—administered in water in $\frac{1}{2}$ drachm doses, every 20 minutes, in ordinary cases, and in severe cases 5 or 6 times within an hour. When the urgent symptoms are subdued (after the few first hours) he discontinues the acid, expecting, ordinarily, by due precaution, recovery without further treatment; but if there remain, as may happen in severe cases, nausea, imperfect digestion, irregularity of the liver, costiveness or irritation of the bowels, &c., these are to be met by appropriate remedies.

EDITORIAL NOTICES.

The portrait of Dr. Scruggs, prepared for the present issue, although well lithographed, is not considered a good likeness, and is, therefore, omitted.

We have designed publishing extracts from some of the many letters, congratulatory and complimentary, received from time to time, but want of space has prevented. We cannot express our high appreciation for those favorable manifestations. We shall labor to *deserve* all we can, but if we deserve one-half the approval bestowed, we shall do well.

Some of our subscribers to whom bills were forwarded in our last, write us that they have "received the *receipt* without recollecting to have paid." Look again:—the bills are not "receipts" without a *written* signature. We hope soon to hear from all who—whether from inadvertency, absence, forgetfulness, or any other cause, or *no cause*—have as yet failed to respond. Those receiving this No. who may not wish the Journal will please return it with their names written on the margin. Should any wish to discontinue, they can do so by remitting \$1 for the half year during which they have received it, and returning the number as stated.

Subscribers or exchanges that may fail to get any of their numbers, will, upon notifying us, be re-furnished.

In addition to those who have ordered it, the present volume of the Journal has been regularly sent to the address of a few eminent medical gentlemen in Tennessee and some other States. This has been done, believing it would be the means of securing not only the approbation but patronage of those to whom it was sent. If in this hope we have not been too sanguine, we will expect those friends to give us the cheering assurance consequent upon the reception of the *ever-needful* in an enterprise like this.

CHOLERA.—For a month or six weeks past, sporadic cases of this disease have been occurring in this city, and in different parts of Davidson county. Within the last two weeks, cases are reported from various points through Middle Tennessee, in country as well as town. We have no apprehension that it will assume an epidemic form; but that it will prevail very extensively throughout the Mississippi Valley is more than probable. We learn from the Eastern journals that the disease is prevailing with considerable fatality on board the emigrant ships arriving at New York and Boston; and fears are entertained that it will become epidemic.

EMIGRATION FROM THE OLD WORLD.—The approaching crisis in Europe, and a dread of the horrors of a protracted and sanguinary war, have given a new impulse to the tide of foreign immigration. A late Eastern paper states that 40,000 persons arrived at the port of New York, within three days!—a sufficient number to constitute a State. At this rate, Kansas, Nebraska and Minnesota will, in half a dozen years, be as densely populated as the States bordering on the Ohio and Mississippi. There must, of necessity, be an immense amount of suffering amongst these vast numbers of emigrants, even under the most favorable circumstances. Ship fever and cholera will sweep off thousands; and the charitable institutions of New York and the other eastern cities will be taxed to their utmost extent.

K.

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DR. J. V. C. SMITH.—During the recent outrage in the city of Boston, growing out of the reclamation of a fugitive slave, Dr. S. distinguished himself as a patriot and an efficient municipal officer. From all accounts, he shrunk not from the responsibilities of his position, but, with a promptness and decision worthy of the highest praise, he exerted himself to quell the mob spirit of the abolitionists, and to sustain the marshal and his posse in executing the laws of the United States.

K.

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ARTIFICIAL BLOCK TEETH.—We cannot refrain from expressing, in this place, the highest commendation of the artistical skill displayed in the carving, coloring and general execution of a sample of gum teeth in blocks, received some time ago from the Dental establishment of Messrs. Wardle & Co., of Cincinnati. We would also commend to the attention of our dentists the single teeth manufactured by this establishment, as not only beautiful and life-like, but equal to any in durability. The advantage of having teeth from different manufacturers, to facilitate selection, (each possessing some peculiarities of style not possessed by others,) is well known; and we would suggest to those in the trade, that they add to their stock of the manufacture of Messrs. W. & Co.

W.

CHEMISTRY.—The increasing importance of the science of Chemistry, is certainly manifested in the multiplicity of the works on this subject which are constantly issuing forth from the press. Great good will also certainly result from this increase of chemical works, not only in the increased facilities for deriving instruction in the grand truths of the science, but from

the familiarity with which they render us in the application of these grand truths to the practical pursuits of life. There is something new in nearly every new issue of the press—either in the incorporation of some new principle, the description of some new element, the more natural arrangement or classification of the various elements and their compounds—or it may be only in the more practical bearing of its facts and principles. Thus in the work which has just been placed upon our table, entitled

A Hand-Book of Chemistry, Theoretical, Practical and Technical. By F. A. ABEL and C. L. BLOXHAM. With a Preface by Dr. HOFFMAN. Philadelphia: BLANCHARD AND LEA. 1854.

There is something new—not in that it contains all that is new in the science, but in the arrangement of its subjects and in its practical character. It embraces only *Chemical Philosophy*—under which head is generally classed the Imponderables, as heat, light, &c., together with the affinities, crystallography, chemical manipulation, notation and nomenclature—*Elementary Chemistry*, which treats of the sixty-four elements and their various relations to and compounds with each other, and *Analytical Chemistry*, to which our author devotes 150 pages:—so that in this volume Organic Chemistry is not embraced. This will render the work valuable to those practical students whose profession or business leads them to deal exclusively with minerals and metals. To all such it will be a handy guide. No other recent work on chemistry, so far as we are informed, contains such an amount of text on *chemical analysis*; and its combination with Inorganic Chemistry alone is a happy one. c.

The Science and Art of Surgery: Being a Treatise on Surgical Injuries, Diseases and Operations. By JOHN ERICHSEN, Professor of Surgery in University College, and Surgeon to University College Hospital. Edited by JOHN H. BRINTON, M. D. Illustrated by 311 engravings on wood. pp. 908. Philadelphia: BLANCHARD AND LEA. 1854.

The well known position and experience of Prof. Erichsen, fortified by the strongly expressed approbation of the English medical press, is the only apology which the American editor deems necessary for presenting this edition of "*The Science and Art of Surgery*" to the medical profession of this country. To many of our readers it is, doubtless, known that the author of the work before us was appointed to the Chair of Surgery in the University College, once so ably filled by Prof. Liston; and the work, being substantially a transcript of Prof. E.'s lectures, as delivered before the classes attending the consecutive sessions of that institution, is at once, to every medical mind, sufficiently descriptive of the importance and character of the work. We must say, however, that the wood cuts are

(singularly accurate, the book is lucidly written, elegantly printed and well bound—altogether, one of Blanchard and Lea's best publications.)

For sale at the Mammoth Book Concern of W. T. BERRY AND CO., Nashville. J.

Lectures on the Diseases of Infancy and Childhood. By CHARLES WEST, M. D., Fellow of the Royal College of Physicians, Physician to the Hospital for Sick Children, etc. Second American from the second enlarged London Edition. 8vo. pp. 486. Philadelphia: BLANCHARD AND LEA. 1854.

Special treatises upon the diseases of children, who constitute so large a proportion (probably one-third) of the patients coming under medical care, and whose diseases are so numerous, fatal and difficult of diagnosis and of management, are indispensable to the physician. Among these the work of Dr. West claims consideration. It is practical, based upon a great number of observations and post-mortem examinations made among a multitude of children coming under the author's personal notice, and, as a safe and judicious guide, has acquired eminent repute. The convenient size of the work will place it at once in the hands of many who might not have the leisure or disposition to peruse a larger volume.

For sale by W. T. BERRY AND CO.

W.

UNIVERSITY OF LOUISVILLE.

MEDICAL DEPARTMENT.

The Eighteenth Annual Course of Lectures in this Department will commence on the 30th of October next, and terminate on the last of February, under the following arrangement:

BENJAMIN B. PALMER, M. D., *Professor of Descriptive and Surgical Anatomy.*
 LUNSFORD P. YANDELL, M. D., *Professor of Physiology and Pathological Anatomy.*
 SAMUEL D. GROSS, M. D., *Professor of the Principles and Practice of Surgery.*
 HENRY MILLER, M. D., *Professor of Obstetric Medicine.*
 LEWIS ROGERS, M. D., *Professor of Materia Medica and Therapeutics.*
 J. LAWRENCE SMITH, M. D., *Professor of Medical Chemistry and Toxicology.*
 AUSTIN FLINT, M. D., *Professor of the Theory and Practice of Medicine.*
 T. G. RICHARDSON, M. D., *Demonstrator of Anatomy and Dissector in Path. Anatomy.*

The fee for admittance to the Lectures of each Professor, is \$15, (\$105 in all.) payable invariably in advance. Matriculation and Library fee together, \$5 Graduation fee \$25. Practical Anatomy and Dissection, \$10—ticket to be taken at least once before graduation. Rooms open from 1st October.

A preliminary course of lectures will be delivered, without additional charge, during the month of October.

Clinical instruction is given twice a week at the Louisville Marine Hospital.—Ticker \$5, to be taken once before graduation.

A Clinique has been established in connection with the University, at which cases are examined, prescribed for and lectured upon in presence of the class.

☞ Good boarding can be procured at \$3 a week.

L. P. YANDELL, Dean of the Faculty.

June 14th, 1854.

THE
SOUTHERN JOURNAL
OF THE
MEDICAL AND PHYSICAL SCIENCES.
SEPTEMBER, 1854.

ORIGINAL ARTICLES.

ART. XXXIII.—TWELVE MONTHS' PRACTICE IN THE CHEROKEE NATION, WEST.

BY J. P. EVANS, M. D., LATE OF TAZEWELL, TENNESSEE.

[*Continued from page 177.*]

TO F. A. RAMSAY, M. D.:

Dear Sir—I send another number of my “Notes” to the Southern Journal; and many subsequent papers may be expected. According to the present rate of publication, two years or more will be required to exhaust the record of cases. Perhaps the articles furnished may become more interesting as they advance, as the present number only reaches to the commencement of the “sickly season,” in this region; and at the close of the warm months, another disease—one which is engaging the attention of many observers—will necessarily come prominently forward. I refer to epidemic pneumonia, which prevailed throughout the winter, and part of the succeeding spring.

It will be perceived, from the practice instituted, that but little attention was bestowed on *palliatives*, (as Gregory terms all substances used to increase the heat of the system in the

cold stage, and to reduce it in the hot,) in the treatment of intermittent and remittent fevers, except such as were intended to allay irritation by acting primarily on the nervous system.

It will also be found that evacuants were seldom employed. I will not now enter upon a full explanation of the principles which guided me, and will merely state, that the periodic fevers of this region, and their kindred affections, (the neuralgias,) are almost exclusively of an adynamic character; (of which character anæmia often forms an element—the endemic agent, whatever it may be, seeming to exert an influence which tends powerfully to the impoverishing of the blood;) therefore, all debilitants should, in my opinion, be avoided, except such as are known to interfere with morbid periodicity, and thus cut short the disease. Again: All evacuants of the alimentary canal are necessarily irritants, and tend, more or less, to irritate the gastro-intestinal mucous membrane. The action of such agents may be harmless in many diseases, and highly beneficial in others; but when there is already a strong tendency to gastroenteric disturbance, (not originating from the presence of offensive substances, but from the force of the disease or its peculiar cause,) their operation could hardly fail in effecting immediate injury, adding thereby to the general morbid agitation, and, finally, in depressing the vital energies. The bowel affections accompanying periodic fevers, I do not find to be amenable to the treatment inculcated by the fanciful aphorism of Hahnemann—*similia similibus curantur*.

To my mind, after investigating the facts and opinions of others, to the best of my ability, aided by personal observations somewhat extensive, (as will be readily allowed,) there is another principle yet widely inculcated, (but happily on the wane,) which, although not reduced to the form of an aphorism, is equally as fanciful as that of the homœopathic enthusiast or charlatan. It is—*Preparing the system for the introduction of quinia in the treatment of periodic fevers*. I will not, at this time, offer any thing in support of this view, except it be to show, by a few quotations, that, as a general rule, the prompt exhibition of antiperiodics, without any preparatory steps being taken, is a doctrine which was inculcated by a

medical teacher eminently distinguished by his practical tact, philosophical powers and sound judgment. I will not occupy space by quoting largely, as the work can be consulted, which certainly possesses a rich mine of practical information for the young practitioner (in the malarial regions) of the present day.

"In such cases the question still remains, whether the bark may be exhibited without waiting for any repetition of paroxysms? And I am persuaded that, for the most part, it may." * * * * *

"This general question, however, always involves another, which is, whether the bark may be exhibited without a certain preparation of the body, that may fit it to receive the bark with greater safety? With respect to this, as we confidently suppose that the bark given in moderate quantity is not ready to disturb the natural functions of the animal economy, so, if these be all in a sound condition, we cannot perceive that any preparation of the body is necessary for the reception of this medicine;" * * * * * "it may be often dangerous to lose time upon the supposed necessity of previously clearing the first passages;" * * * * * "although, when there is no debility in the patient, nor dangerous symptoms attending the paroxysms, the exhibition of the bark, in complaisance to popular opinion or medical prejudice, may be sometimes delayed." * * * * *

"I am convinced that it is in the cold stage of fevers that accumulations of blood are formed in the liver and spleen; that such accumulations are increased by every repetition of a cold stage, and consequently by the repetition of paroxysms; and I am, therefore, clearly of the opinion, that even considerable obstructions of the viscera, if without inflammation, ought not to prevent the exhibition of the bark in such quantity as may prevent the return of paroxysms." * * *

* * * * *

"—In such cases I have freely employed the bark, and never found it increase the affection of the liver or spleen: and in other such cases I have constantly found, that the avoiding the bark, and admitting, therefore, the repetition of

paroxysms, brought on disorders which frequently proved fatal." *

In my next communication, I will quote the same high authority on another point—viz: Jugulating remittents.

CASE 29. *Inflamed Absorbents*.—July 1st, 1853. Mrs. F., aged 25, sent for me in great haste, 14 miles. Was absent when the messenger arrived. Learned that he had said something about "swelled leg." Pondered on the treatment of *phlegmasia dolens*, as I sped over prairie, woodland, hill and dale. Found the lady sitting up, with an infant a month old in her arms. The first hasty glance dissipated my anxieties, and, unable to repress a broad smile, I asked, "Who is sick?" She demurely answered, "Me," and caressed the little stranger. After a pause of a few moments, she added—"I fear I am afflicted with *milk-leg*." "Be so good as to let me examine the limb, madam." Slowly and carefully she removed several large pieces of flannel, with which the left leg was swathed from the knee to the ankle; but when this was accomplished, I could discover nothing abnormal, until she pointed out three tumors, opposite the insertion of the sartorius, about the size of small peas. She was slightly costive.

R. Rhei, 10 grs., and saturnine compress over the very slightly inflamed absorbents.

I was afterwards called to a sick child in this family, but not until an attempt was made to procure the services of another physician; hence I report the case to demonstrate the importance of a medical practitioner rigidly maintaining true professional gravity, when in the presence of a patient but slightly affected,

"Though Nestor swear the jest be laughable."

CASE 30. *Pleurodynia*.—July 2d. A negro woman, aged 22 or 23 years, at the same place as case 28. Had pain in the right side of the thorax, slight fever, urgent thirst, and diarrhea. The pain was not so acute as that in case 28, but the remissions, (not intermissions,) though distinct, (at irregular periods, according to the history received,) were of short

* Cullen's *Materia Medica*, (2 vols. in 1,) vol. 2, pp. 53, 54.

duration ; so that the patient enjoyed but little repose, by day or night. I could learn nothing in regard to periodicity.

R. Venesection, 3xvi., in the erect position, followed by a calomel cathartic. No immediate relief of consequence was obtained from the blood-letting, although there was an approach to syncope, with relaxation of the cutaneous exhalents ; and on

July 3d, (after the action of the calomel,) I found the patient's condition apparently no better.

R. S. quinine, grs. xvi., divided into six portions, with 3 grs. of myrrh to each. One to be taken every two hours, (commencing late in the afternoon,) until all are taken. A dose ($1\frac{1}{2}$ gr.) of opium was given to allay intestinal disturbance. Before the medicine was exhausted, the pain in the side subsided : it was all taken, however, and the disease was jugulated. There was no relapse or recurrence.

In this case I could *perceive* nothing which afforded the slightest proof that the blood-letting and catharsis effected a necessary preparation for the administration of antiperiodics. The only reliable data upon which we can predicate an opinion in regard to the aptness or inaptitude of remedies, are appreciable results.

CASE 31. *Conjunctivitis, acute*.—July 1st. A son of Mr. Lype, aged 14 years. Had been afflicted for more than a week, and had quit school (Cherokee Male Seminary) in consequence. The eyes were intensely red, without any elevation of the sclerotica, accompanied with profuse lachrymation and great intolerance of light. There was slight febrile excitement, which, as I was informed by his parents, intermitted during the greater part of every night and forenoon, with some abatement of ophthalmic distress. Two or three days previous to my visit he had taken a purgative.

R. S. quinine, 16 grs., in six doses ; all to be taken by 10 o'clock, A. M., the next day.

R. Sulph. zinc, 5 grs.,

Water, 3j. Collyrium.—To be used (three times a day) after taking all the quinine. To be confined to a darkened room, and (as all the light cannot be excluded) wear a black bandage. Diet, farinaceous.

For a week, or thereabouts, (as his father—an intelligent man—informed me,) his eyes were much better; in fact, that *decided* amendment immediately followed the jugulation of the slight intermittent fever effected by the quinine; but the redness of the eyes did not entirely disappear, although intolerance of light, preternatural secretion of tears, and pain subsided. He relapsed with fever and ophthalmia simultaneously, and quinine was again administered with good effect.

A consentaneous redevelopment of the two diseases (if it be proper to separate them) occurred several times. The lad resided twelve miles from me, and was not placed regularly under my care: I was occasionally called on for a prescription. On the 18th of August, I prescribed quinine as an antiperiodic, iodide of potassium for an alterative, and a strong solution of the nitrate of silver for a wash. The application of the latter was soon followed by marked amendment.

He gradually recovered. Except during febrile paroxysms, he was never prostrated; and as a fit of fever subsided the pain diminished, so far as to permit refreshing sleep, and, by the aid of this, and a generous diet, (that which was at first prescribed having been abandoned after the lapse of a few days,) he was enabled to retain his strength against the assaults of diurnal anguish.

Mr. Lawrence, Mr. Melin, and Dr. Mackenzie, of Glasgow, concur in the opinion that local applications are superior to general treatment in this affection; and the opportunities of each of these gentlemen for making observations in regard to its treatment were quite ample. Dr. Watson adopts their opinion, but not in consequence of his personal observations, and says—"In disorders which manifest a strong natural tendency to terminate in recovery, it is only by taking advantage of the conclusions derived from extensive observation that we can be quite sure of our ground; and when the same result is reached by different and independent observers, we may safely place confidence in their concurrent testimony."* If medicine is to be progressive, the liberal spirit displayed in

* Watson's Practice, p. 183.

the passage quoted, should be cherished by all the members of the profession. But the adoption of new remedies and modes of treatment often involves the necessity of abandoning favored and "time honored" views and principles, and we all, more or less, dislike to do so.

A French author (whose name I cannot just now recollect) declares that every country is as much characterized by its diseases as by its animal and vegetable productions. I believe there is truth in the statement. My personal observations in regard to the treatment of acute ophthalmia *in this region*, lead me to the conclusion that *here* the disease requires for its subjugation both general and topical treatment; that active depletion will seldom, if ever, be of benefit; that the general treatment must consist mainly of the application of antiperiodics.

In regard to periodicity in this disease, it is mentioned by Gregory;* and Eberle says—"Ophthalmia sometimes assumes a strictly periodical form." In cases of this kind he condemns leeching, blood-letting and cooling applications; and goes on to say, that "the appropriate means consist of the same remedies that are employed in intermitting neuralgia, or in the ordinary intermitting fever: and there can exist but little doubt that all the forms of periodical disease are congeneric affections."†

The consentaneous appearance of the two affections, without premonition appreciable by the patients—their consent in periodicity, and in declension, on the exhibition of antiperiodics—are remarkable coincidences at least, and certainly establish the fact of an intimate relationship, in some way. But all the facts yet presented to my mind, do not convince me of the *identity* of the two diseases; i. e., that periodical ophthalmia is one form of periodic fever. In the result of treatment we perceive this difference,—that the *fever* is cut short—jugulated—but the affection of the eyes, although greatly benefitted at the same time, does not wholly subside within the same period. In *all* the cases which have fallen

* Gregory's Practice, vol. 1, p. 328.

† Eberle's Practice, vol. 1, p. 424.

under my personal observation, of the ophthalmia I have endeavored to delineate, intermittent or remittent fever (periodic) has been distinctly traced. I yet have to witness a case in which the ophthalmia did not persist as long as the patient continued to relapse with periodic fever. The present case was an instance of this result of my observations. As soon as he ceased to fall back into the intermittent fever, the ophthalmia disappeared, and not before, although it seemed to be benefited by a topical remedy. But I must state that my observations in this affection *here* have not been sufficiently extensive to enable me to form very accurate opinions, or such as are satisfactory to myself, particularly in regard to the relationship existing between the diseases in the instances to which I have alluded. I have only treated ten or twelve cases, and many may occur without periodic fever.

This is an interesting subject, and I feel that I could dwell upon it—in some form or other—for many hours; but such labor would doubtless be of little profit.

At present, perhaps as good a view (not very definite, I admit,) as can be taken of the matter, may be found in the writings of Cullen when enumerating the causes of ophthalmia: "A certain consent of the eyes with the other parts of the system, whereby from a certain state of these parts, either a simultaneous or an alternating affection of the eyes, is produced." *

In transcribing my notes I shall be compelled to recur to this subject again.

CASE 32. *Masked Intermittent, with Dysentery.*—July 2d.—Mrs. Sanders, aged 80 years; had been sick about two weeks. Conversed with her through an interpreter, as she could not speak English. Could only learn that she had dysenteric symptoms, with occasional intervals of ease. Here I beg leave to remark, that physicians, like lawyers, can ask *leading questions*, unwittingly, and in this way obtain false facts. In the present case, I did not say—"The pain commences at a certain hour every day, or every other day, does it not?" but, "At what time of the day does the pain set in?" When this

* Cul. Prac. (2 vols. in 1,) p. 110, par. 280.

was answered—"During what portion of the day are you exempt from pain?" In this manner I obtained a knowledge of the regular periodicity of the disease, although none of the family—several of them intelligent—had noticed it for two weeks.

Found her with a hot, dry skin, great thirst, and pulse small and frequent. The interpreter informed me that small tumors, or an eruption, existed at the verge of the rectum. The pains are extremely severe, and there is an almost constant desire to stool, which causes her to rise from the bed every few minutes for hours together. The patient's extreme age, and long suffering, impart to her face an aspect approaching that of the Hippocratic.

R. S. quinine, 20 grs., divided into six doses. All to be taken during the interval. To allay tormina—

R. Opium, gr. jss., to be taken as occasion may require.

For the anal eruption or tumors,

An ointment of Tannin,

Opium, \bar{a} \bar{a} 3j., and

Lard, 3ss., was prepared.

July 5th. Found my octogenarian patient much better.—The first interpreter was incompetent, as I now learned that no anal or rectal eruption or tumors had existed, but only a *sensation* as if such a condition had been present. She occasionally has tormina; but there is no fever, or any of its concomitants, and the tormina occur at long intervals. For this the opium was directed to be taken as formerly. Appetite had returned, but she was quite weak.

R. Myrrh,

Camphor,

Ferrocyanate of Iron, made into an emulsion with simple syrup. To be taken three times a day.

In a short time the old lady regained her accustomed health and strength; but a relapse, or, rather, a recurrence, took place late in the month, and on the 30th, I again visited her, and found her condition similar to that already described, and a similar treatment was instituted, with a like result. She is yet living—June, 1854.

CASE 33. *Remittent Fever*.—July 3d. Mrs. Anna Price, aged

40; subject of case 20. Has been sick more than forty-eight hours. Found her with a hot, dry skin, severe head-ache, insatiable thirst, and a small rapid pulse, accompanied by nausea and vomiting. She states that during the forenoon the above symptoms were less urgent, but were present. She had taken a dose of cathartic pills (a nostrum) on the first day of her illness, which had operated.

R. Acet. Morph. $\frac{1}{4}$ gr. In less than half an hour head-ache, nausea and vomiting had subsided.

R. S. Quinine, 12 grs.,

Myrrh, 18 grs., divided into six portions. One to be taken every two hours, commencing late in the afternoon.

4th. (Morning.) Found her perspiring, which process had commenced in the latter part of the night. No return of fever. Rapid convalescence.

This was the first case of remittent in which I combined myrrh with quinine: in the treatment of intermittents I thought I had found it to be a good adjuvant; (I will hereafter have more to say in regard to it;) and I gave it now just for the object for which I would have given it in a case of plain intermittent; i. e., for its antiperiodic effect.

CASE 34. *Uterine Hemorrhage*.—July 4th. A. H., aged about 35 years; supposes she is two months advanced in pregnancy. The hemorrhage commenced some two days ago, very slight, and is not yet profuse. She is able to walk about the house and yard.

R. Opium, gr. ss.,

Acet. Plumb. gr. ij. To be taken occasionally, as the hemorrhage may seem to demand. A dozen doses or more were used in the course of a week, *as she informed me*, and I do not doubt the truth of the statement, as she was very much frightened. She was not confined to her bed.

During the summer previous, (1851,) I visited the same woman in a similar case, of an alarming character. The flooding had been (and was still) most profuse, and she was exceedingly prostrated. Grasping the womb, (with the fingers expanded,) in different directions, (Denman's frictions,) a wet towel, and acetate of lead with opium, constituted the management. On examining a portion of the discharge, (which

had been preserved in a vessel,) I found a fœtus of about two months' growth.

I presume she aborted in the present case; and perhaps the use of the acetate of lead, with the opium, prevented dangerous flooding.

[In 1851, during the time this patient was confined to her bed from debility resulting from the great loss of blood referred to, when her face, gums and tongue were exsanguinous in appearance, she was severely attacked with remittent fever, attended with intense head-ache, and a remarkably hot, dry skin. Thirty grains of s. quinine removed it as promptly as it would have done a case of common ague.]

CASE 35. *Rubeola*.—July 4th. A little daughter of C. M. De Lano, aged 3 or 4 years. [See "Apropos," case 18.] The case seemed to progress naturally, with the exception of a diarrhetic tendency.

R. A weak solution of the acetate of morphine, given twice a day, was the only medicine used. She did well.

CASE 36. *Remittent Fever*.—July 5th. A son of James Sanders, aged 12 years. Has been sick three days, without an intermission; and the remissions have been short and imperfect. He has taken no medicine of any kind.

R. S. Quinine, 16 grs., divided into eight portions. The whole to be taken before the usual time for the increase of febrile phenomena—commencing immediately, although the skin is hot and dry. Jugulated.

CASE 37. *Remittent Fever*.—July 5th. A sister of the above. (at the same time and place,) aged 4 years. Remittent fever, with frequent vomiting.

R. Very small doses of the acetate of morphine every hour, until the vomiting ceases. Two doses sufficed.

R. S. Quinine, 12 grs., in six doses, to be taken during the remission. No other medicine was taken. The fever (as in other cases) wholly subsided during the administration of the medicine, and did not reappear. Speedy recovery.

CASE 38. *Remittent Fever, with Erysipelas*.—July 6th. A little son of Wm. Barker, aged two years and six months, had been sick several days with a febrile affection, accompanied by an erysipelatous inflammation of the left leg, which was

considerably swollen from the knee to the ankle. On inquiry, found the fever to be distinctly periodic—worse at tertian periods—but more or less febrile excitement was always present. During the acme of the fever, he was inclined to sleep; (this I find to be the case with a great majority of children;) but at other times he was extremely fretful and restless. He had been purged with castor oil.

R. S. Quinine, 12 grs.,

Dover's powder, 6 grs., divided into six portions. One to be taken every two hours, commencing at 7 o'clock, p. m. Also left a solution of the acetate of lead, to be kept constantly applied to the leg by a cloth folded several times.

The next day sent (12 miles) tinc. iodine, to be painted over the inflamed surface.

The periodic fever was cut short, and the erysipelas wholly subsided in a few days.

In this case the erysipelatous inflammation was discovered before the fever was observed, by the parents. In non-malarial regions, doubtless the accompanying pyrexia would have been "erysipelatous fever;" but here the endemicity reigns supreme, and stamps its peculiar seal on every disease, and so deeply that the process of removing that seal obliterates all other affections, either primary or secondary: for the removal of its enfeebling chain a special management is necessary, as it will not submit to remedies held to be the most appropriate for the subjugation of other morbid manifestations which may complicate it.

CASE 39. *Remittent Fever*.—July 6th. A little girl (at the breast,) daughter of Lewis Keys, had been sick a week or more with fever. Found that there had sometimes been slight remissions, but could learn nothing in regard to paroxysmal periods; in fact, the mother at first declared that the child had had a high fever all the time; but, on reflection, granted that at certain times the fever was not as intense as at others. At first, there had been diarrhea, but on the administration of a domestic remedy, it had subsided. A very minute, yet distinct papular eruption, was distributed on different parts of the body. The child cried almost incessantly, and appeared to

suffer great pain when an attempt was made to lift it from its cradle.

The mother had very recently convalesced (as her appearance indicated) from severe illness, of thenature, as she stated, of that with which the child was afflicted. It was characterized by high fever, "distressing pains and soreness in the bones," (as she expressed it,) and a similar rash. The cases (according to the present appearance of the one and the history of the other) certainly reminded me of *Dengue*, a few cases of which I had seen, among Kentuckians returning from Charleston, South Carolina, during the prevalence of that disease a few years ago.

R. S. Quinine, $1\frac{1}{2}$ gr.,
Myrrh, 1 gr.,
Piperine, $\frac{1}{2}$ gr., every two hours, commencing late in the night. Left next morning. The child had perspired some, and an interval, almost amounting to an intermission, had taken place.

7th. Again sent for, (14 miles,) and arrived in the night. Learned that the fever had been renewed in the forenoon, earlier than had been anticipated.

Perhaps some practitioner, on reading this case, (should it be honored with a perusal,) may exclaim—mentally, at least,—"No wonder fever arose earlier than had been anticipated, when the prescription is considered." But I must state, that I had remained ten hours or more with the child, and during that time it had taken not less than four portions, and febrile heat and tumult had very perceptibly declined. And still further:—that I now remained till 1 o'clock, p. m., the next day, and administered to it 16 grs. s. quinine; that early in the day all vestiges of febrile excitement had subsided; and lastly, that no other paroxysm occurred, and convalescence was rapid and permanent.

CASE 40. *Dropsy*.—July 7th. A young woman, aged 18 years, a full blooded Cherokee, daughter of Corn Silk. Distance to her residence 15 miles; but she was brought within 5 miles of me, for the purpose of receiving medical attention. Had been sick ever since an early date in April.—Found her with general anasarca, and ascites; the latter (as

well as the anasarca) was very conspicuous, with distinct fluctuation. The face was greatly bloated, and the legs, when grasped, felt singularly firm and hard; but an indentation could be made with the finger which would remain for several minutes. Accompanying the dropsical condition were the following derangement of function:—Suppression of the menses, depraved appetite, costiveness, and paucity of urine; and there was occasional head-ache.

Found her with some unnatural heat of the surface, and a rapid pulse. Learned that she had a paroxysm of fever, preceded by a slight chill, at tertian periods. This was a paroxysmal day.

R. Squill, pulv., 5 grs.

Calomel, 2 grs., three times a day.

9th. No perceptible improvement. Believing that as long as paroxysms of intermittent fever occurred, every morbid process going forward in the system. would be augmented, or maintained, I prescribed as follows:

R. S. quinine, 20 grs., in six doses to be taken during the latter part of the intermission; and in the afternoon of the next paroxysmal day in course, (after the jugulation of the intermittent should be accomplished,) I directed—R. Jalap, 20 grs.

13th. No change, except that the intermittent was arrested, and the œdema of the face was somewhat diminished. The jalap had operated well.

R. Jalap, 20 grs., every other night. Also—

Precip. Carb. Iron, 3ss.,

Spts. Nit., dulc., 3j., three times a day. Bi-tartrate of Potassa, *ad libitum*, as a drink.

19th. Found her laboring under a severe coryza, with slight cough, and complaining of pain in the right side of the thorax, which extended to the hips: on examination, discovered tenderness of the intercostal muscles, and paid no attention to it.

Every dose of jalap had acted as a hydragogue, and the urine had greatly increased in quantity. The dropsical condition (both areolar and abdominal) had greatly diminished.

Good appetite. Can sit up in a chair, a great portion of her time, which was not the case previously.

To the previous prescription I made some additions, so that the whole stood.

R. Precip. Carb. Iron, 3ss.,
 Spts. Nit. dulc., 3j.,
 Syrup of Squill, 3ss.,
 Iodide of Potassium, 2½ grs.,

Tinc. Digitalis, 5 drops, three times a day. The jalap and cream of tartar to be continued as before.

25th. No dropsical swelling perceptible; but the intermittent fever has returned. For this 20 grs. of s. quinine were taken, in six portions. Her strength now rapidly increased, and early in August she returned to her residence, and attended to the domestic concerns of her father—a widower.

Some time in October following, she had an attack of diarrhæa, (as I afterwards learned,) and in a short time died, without medical attendance. I have no doubt that the diarrhea complicated intermittent fever.

July 7th.—CASE 41. *Dysentery*.

“ 42. “

“ 43. “

Three children of Thomas Davis had had dysenteric symptoms *minus* febrile excitement for several days.* Although mild, their persistence had caused the children to become languid, and to lose flesh.

R. Dover's powder, and

Acetate of Lead, in doses proportionate to their several ages, to be taken 2, 3, or 4 times a day, as the condition of the bowels seemed to demand. No other prescription was necessary: the disease subsided rapidly in each case. The use of purgatives, I have no doubt, would have rendered them formidable.

CASE 44.—*Rubeola*.

July 7th. An infant daughter of R. Keys, had been sick 5 or 6 days, and when he started for me, (6 miles,) the eruption was partial, the extremities rather cool, and the child could

* I have never witnessed a case of *epidemic* dysentery without fever.

not be easily roused; but on my arrival, I found that reaction had taken place, and the rash plentiful; still the circulation was rather feeble. The eruptive movement had commenced on the 3rd or 4th day; but the process seemed to have been interrupted by the action of a dose of castor oil.

R. Acetate of Morphine, in minute portions, every 3 or 4 hours; and also

Sublimed sulphur, a few grains, night and morning. The child soon recovered.

CASE 45.—*Intermittent Fever.*

July 7th. A son of Mrs. Anna Price, aged 5 years. Tertian form; third paroxysm; nothing anomalous.

R. Myrrh, 2 grs.,

Camphor, pulv., 1 gr.,

Carb. Magnesia, q. s. Made into an emulsion, with water. To be taken every two or three hours before the paroxysmal period. The disease was arrested as promptly as if quinine had been given. This was the first case I attempted to relieve without the use of a well known anti-periodic. I had previously succeeded with a combination of myrrh and quinine, when I felt confident that the quantity of the latter was insufficient, if given alone, under the method pursued in its administration—in 4, 6, or 8 portions.* I therefore concluded that the myrrh had exercised an anti-periodic influence.

In the result in the present case, (and in the one succeeding,) I did not know what value to attach to the camphor, and resolved to test the effects of myrrh alone, the first favorable opportunity.

CASE 46.—*Intermittent Fever.*

July 7th. A negro boy, aged 10 years, at the residence of the above; plain, non malignant intermittent.

R. Myrrh, 4 grs.,

Camphor, 2 grs., given to the same number of doses, and in the same form and manner, as in the preceding case. Arrested.

* I am aware that a single large dose of quinine—10 grs., for instance—given to an adult, will often succeed,—if administered at the proper time; but the difficulty, (and in many cases impossibility,) of ascertaining the paroxysmal hour, is a great objection to the practice.

CASE 47.—*Malignant Intermittent.*

July *. Negro Sam, aged 25 years, belonging to George Blair, had been sick three or four days. Quotidian. The cold stage commenced late in the afternoon, and continued through the greater part of the night, so that the succeeding hot stage reached its acme early in the morning.

I wished to test the powers of myrrh alone; but the case was rather grave in its aspect to be trusted to the influence of an untried agent; I therefore gave the *combination* which had succeeded in the two cases last detailed.—

R. Myrrh, 10 grs.,

Camphor, 5 grs., Dose.

Six doses to be taken before the usual morbid period, commencing about 10 o'clock, A. M., when the hot stage was perceptibly declining. Gave the medicine myself. No disagreeable symptom, whatever, was perceived. The intermission came on as on preceding days, and no paroxysm succeeded. There was no relapse, and the negro has continued in good health up to the present time—July, 1854.

CASE 48.—*Intermittent Fever with Dysentery, following Rubeola.*

July. A daughter of Martin Scrimpsheer, aged 15 years. During the desquamation of measles, intermittent fever, (tertian,) with dysentery, occurred. The cold stage was quite short, and apparently slight; the hot stage was protracted, and was not followed by a sweating stage.—The dysenteric symptoms were severe, and continued through the apyrexia, refusing to conform to the habitude of the intermittent. The discharges from the bowels were muco-sanguineous. Considerable emaciation and debility.

R. S. Quinine, 16 grs., in six doses. All to be taken before the next paroxysmal hour. At the same time,

R. Opium, 1 gr., and

Acet. Plumb., 2 grs., were directed to be given every 3 or 4 hours.

Two days afterwards I found the young lady much better. No chill or fever had occurred after taking the quinine. The

* In the present, and several succeeding cases, the day of the month cannot be ascertained, as a part of my day-book is destroyed.

dysentery had been controlled by the opium and sugar of lead; but a disagreeable stupor had been kept up, as the anodyne had been regularly administered. Her mother had given her a vermifuge, (nostrum,) and two round worms, (lumbricoides,) had been discharged. Natural fœces had appeared.

In addition to the opium and acetate of lead, (which were only to be given when dysenteric symptoms appeared,) I directed—

R. Spigelia, pulv., 5 grs., three times a day.

Once or twice a day, for three or four days, some tormina were felt, and slight tenesmus also; but they were speedily allayed by a dose of opium and lead. The diet had been chicken soup, and thin homminy or gruel. Under this treatment the bowels resumed their healthy function; and in less than a week she was permanently convalescent.

Here it would be proper to make some remarks on dysentery; but I have commenced writing a separate article on that subject, and I will not anticipate it.

CASE 49.—*Gastralgia.*

July —. Maxwell Chambers, aged about fifty-five years. In his youth and early manhood, he served as a clerk in retail stores; (and occasionally since;) and during all that time, and up to the present period, he has been remarkably fond of “creature comforts,” including spirituous (alcoholic) potations, when such could be procured; but he has always been confident in the opinion that such indulgences did not injure him. An hereditary vice in his organization, imprudent habits, or *bad liquor*, or all these causes combined, caused him to become dyspeptic many years ago. For the last two months he has been confined within doors, and half the time in his bed.

In addition to his old affection of stomach, he now complains of pains in his bowels, and sometimes slight febrile excitement, preceded, occasionally, by obscure chilly sensations; but if the disease be periodic, he can give no account of paroxysmal hours. He has been taking various nostrums in large quantities,—Sand’s and Bull’s sarsaparilla, cherry pectoral, and Jayne’s expectorant, carminative balsam, and vermifuge. He has also taken a few pills of blue mass. Stim-

ulants, when taken into the stomach, produce no unpleasant sensations.

My efforts were mainly directed to the mitigation of the most distressing symptoms, and placing him on his feet again. For this purpose (supposing a masked intermittent might be exerting an agency in his present condition) I gave 20 grs. s. quinine, in six portions, every two hours, to be followed by precipitated carbonate of iron. Also 5 grs. blue mass every third night,—succeeded by rhubarb the following morning.

About a week afterwards I was again sent for, and found my patient complaining of his stomach and bowels.

R s. morphine, $\frac{1}{4}$ gr. procured perfect relief, which lasted through the night, and until I left late next morning. He was greatly elated, and supposed he would be radically cured. Since taking the quinine there had been no chilly sensations or febrile movement.

I now directed opium and camphor— $\frac{1}{2}$ 1gr. of the former, and 2 grs. of the latter—to be taken whenever intestinal, or gastro-intestinal uneasiness should be felt; and also, on the occurrence of febrile symptoms, to repeat the quinine.

R. S. Quinine, 16 grs.,

Myrrh, 24 grs.,

Piperine, 8 grs. Six doses, one every 3 hours.

In a few days he was “on his feet,” and took employment in a store in town, in order to be near me. For more than two months I saw him several times a week. He was exceedingly imaginative and whimsical; and any special dietetic arrangement for his benefit was impracticable. I could, I suppose, sometimes trace periodicity, and quinine, Fowler’s solution, myrrh and camphor, &c., were alternately given; with opium, or a salt of morphine, (which always gave temporary relief;) but no permanent benefit ensued. However, he has not been prostrated again—July, 1854.

CASE 50.—*Malignant Intermittent.*

July —. Mrs. Steele, aged 25; tall and spare; an infant at the breast. Saw her at 10 o’clock, A. M. Learned that the afternoon previous, she had been seized with a chill which was protracted till late at night—four hours, or more—and followed by reaction of a high grade, with a deep throbbing

pain in the head. Febrile heat had subsided without perspiration; the countenance was pale, sunken, and anxious; pulse very small and slow. She had taken no medicine. I feared another paroxysm would endanger her life.

R. s. quinine, 10 grs., immediately, and 5 grs. every hour.—To go to bed, and remain there through the day.

Only two 5 gr. doses were taken, but no paroxysm occurred, and the next day she resumed her household duties. There was no relapse.

CASE 51.—*Remittent Fever.*

July. Mrs. Greene, aged 18 years. (In town.) Stated that she had had fever three successive days, (with short intermissions,) without any appreciable chill. To-day, the usual time for an intermission to take place had passed by, and only a slight remission occurred.—Has been relapsing, every few weeks, with ague, for more than twelve months.

R. S. Quinine, 20 grs., in four doses; one to be taken every two hours. Also

Blue Mass, 5 grs.

The disease was cut short; but 24 hours afterwards, vomiting and purging took place, which quickly subsided under the use of two small doses of acetate of morphine. I think it probable that the gastro-intestinal disturbance was excited by the blue mass.

CASE 52.—*Remittent Fever.*

July. Miss Lucinda Taylor, aged 18. (In town.) Afternoon. More than 24 hours previous to my visit she had a slight chill, followed by reaction, (?) or febrile excitement, which had continued without perceptible abatement. Found her with a hot, dry skin, severe headache, urgent thirst, and rapid pulse.

R. Acet. Morph., $\frac{1}{4}$ gr., immediately, and 5 grs. blue mass at night; and the next morning 25 grs. s. quinine, in 5 doses; one to be taken every hour, commencing early.

I was absent twenty hours, and on my return found the patient with the symptoms above described, except that the head-ache was very slight.—This mitigation was observed in half an hour after taking the acet. morphine. I also learned, that a short time after taking the first dose of quinine, in the

morning, she had a general perspiration ; and soon after taking the second dose, the remission gave way to a perfect intermission ; but either the medicine was not given as rapidly as had been directed, or the paroxysm anticipated its previous period ; for, before the third dose was given, febrile excitement, preceded by slight chilly sensations—set in. The medicine was continued, however, until it was all taken.

I now gave nothing but a small dose of acet. morphine, and in a few minutes sweating commenced ; and in two or three hours the fever had entirely subsided, and there was no other paroxysm.* Convalescence rapid. She relapsed in two or three weeks.

(Some of the cases termed relapses, may, perhaps, have been recurrences, from a re-application of the peculiar cause of the disease.)

CASE 53.—*Intermittent Fever.*

July. A child of Hon. John Thorn, aged between two and three years. Plain tertian intermittent. R. S. Quinine, 10 grs., in six doses. To be given during the latter part of the intermission. Jugulated. No relapse.

CASE 54. *Neuralgia.*

July 22. Eliza Maw, aged 35 years. Arrived at her residence (25 miles) late in the afternoon. Found her pale and emaciated, with a small, frequent pulse, and laboring under acute pain, somewhat of a hemicranial character, (as the pain was confined to one side of the head,—the right ;) but from tracing its radiations to the face, the jaw, and parts about the external ear ; and finding some tenderness on merely touching over the course of nervous branches, I found it to be confined to the external parts, principally to the temporal branches of the portio dura. There was a slight febrile movement, as indicated by a dry skin, slightly above the natural temperature, and thirst. Anorexia.

Learned that she had been bed-ridden for several weeks ; that there were *remissions* of pain of short duration ; that the pain was most severe at tertian periods, although there was a renewal of it every day. She had been taking the muriated tincture of iron, aperients, and several nostrums.

* See Case 2.

The pain was now in its acme. [it had its periods of accession, acme, and decline,] and to mitigate her sufferings temporarily, I gave $\frac{3}{4}$ of a grain of s. morphine, which accomplished the object, and brought about perspiration; but it also induced an unpleasant degree of marcotism—irregularity of respiratory movement, and general muscular prostration.

At 6 o'clock, P. M., commenced giving—R. S. Quinine, 30 grs., divided into six portions—one every three hours. A few grains of blue mass were also given.

I remained until the next afternoon, (23rd.) During the night another dose of s. morphine—smaller than the first—was given, and the patient enjoyed more ease and sleep than usual. In the forenoon there was a clear intermission of pain and fever; but about 1 o'clock, P. M., the morbid condition again set in. I could remain no longer, and prescribed as follows:—

R. Fowler's solution, 8 drops, three times a day, for three or four days; s. quinine, 10 grs., to be taken at a single dose, at 9 o'clock A. M., the next day, (24th. ;) s. morphine, to be taken to allay or moderate pain, in doses of 1-6 of a grain; rhubarb to be taken in case of costiveness; and after taking the arsenite of potassa as long as above directed, to take the precipitated carbonate of iron, in 3ss. doses, three times a day.

Saw the patient often afterwards, in passing to other places. Learned that the paroxysm was not again repeated, although there were slight transitory pains, occasionally, for several days. Convalesced firmly. No relapse.

In the summer of 1838, I attended the same individual for a similar affection, in a less aggravated form, which had persisted, however, with more or less severity, at single tertian periods, for two years, or more; and it was jugulated with 20 grs. of s. quinine as effectually and promptly as if the case had been one of simple ague.

[She informed me, that a few years ago R. D. Ross, M. D., treated her for a similar disease successfully.

CASE 55.—*Diarrhæa, following Rubcola.*

July 24th. Mr. Fields, a young man, (student in the Cherokee Male Seminary,) had severe diarrhæa, which came on during the desquamation of measles. Found him very much pros-

trated : passages from the bowels frequent, watery, and attended with pain.

R. Opium, 1 gr ,

Camphor, 2 grs., every three or four hours, until the bowels are quieted : then, a dose of the same to be taken as often as a lax, or painful condition, of the bowels, may demand.

A few doses sufficed. He convalesced rapidly.

CASE 56.—*Malignant Intermittent.*

July 25th. Wm. Boot, aged 23 years, had been sick for several days, with intermittent fever of the tertian type. The cold stage was not remarkably severe ; but the hot stage was protracted to ten hours, or more :—visited him during the latter.—Head-ache, surface dry, and intensely hot to the touch ; pain in the loins ; tongue slimy, and covered with a thin coat slightly yellowish ; thirst urgent ; occasional nausea and vomiting.

R. Act. morph., $\frac{1}{4}$ gr., immediately, which seemed to moderate, in a notable degree, head-ache, pain in the back, nausea, and febrile agitation. Also directed dulc. spts, nit., in teaspoonful doses, every two hours, during the stage of excitement ; and calomel, 20 grs., to be taken early the next morning,—followed by castor oil in four or five hours, unless the former produced catharsis, within that time ; and after such action, to take, during the remainder of the intermission, 25 grs. s. quinine, in eight portions, at such intervals as would cause the whole to be taken by 10 o'clock, A. M., the next day, (27th.)

The medicines prescribed were all taken in due time ; but at the next tertian period the paroxysm was repeated.

In the following intermission, 30 grs. of the s. quinine were given, in divided portions, and the disease was arrested. No relapse.

I think it probable that the exhausting effect of the cathartic operation, (calomel and oil were both taken,) caused the failure in the first instance.

CASE 57.—*Dyspepsia.*

July 25th. Rev. Isaac Saunders, aged about 35 years, had been afflicted with a disease of the digestive organs for sever-

al years.—In his youth and early manhood, he had been dissolute in his habits, and often indulged in excessive alcoholic potations: for the last eight or ten years he has led an exemplary life. For several years he has been engaged in riding as a native itinerant preacher, and laboring on his farm, alternately. In the summer of 1851 he called my attention to his case. He was then, as now, complaining of various uneasy sensations in the epigastrium, and costiveness; but the pains were not of a very acute character. Appetite was not impaired, but was rather inordinate a great portion of the time. There was very little, if any, tenderness on pressure, in any part of the abdominal cavity.—Stimulants taken into the stomach, produced an agreeable warmth rather than pain. He had taken patent pills of various denominations, and a little blue mass.—I directed the latter twice a week, at night, to be followed by rhubarb the next morning. The *diet* prescribed, will be mentioned in another paragraph. In the autumn of the same year, [1851,] I gave him a combination of myrrh and camphor, which had a good effect—pleasant, at least—as long as he used it. I have sometimes *heard* of the radical cure of old cases of dyspepsia by medicaments alone; but in a practice of more than twenty-five years, I have not witnessed an instance of the kind.

I believe it was in the spring of 1839, I was consulted by the Rev. Mr. Essex, a methodist missionary, for indigestion. I found him emaciated, with a peculiarly pale, sickly hue of the skin, and enlarged abdomen, [without fluctuation,] which presented a ludicrously disproportionate magnitude to his legs.—He was also afflicted with an inordinate appetite, itching of the extremity of the nasal projection, and peevishness. In this condition he had hibernated at the residence of a brother minister, until late in the spring, indulging in enormous meals of the most substantial [animal and vegetable] food, with large potations of coffee and China tea. I conversed with him fully and freely, and prescribed as follows:—To leave off in toto, and at once, the use of animal food, tea and coffee; to carefully avoid the use of any stimulant or narcotic; to live on half a pint of sweet milk, bread, mush, or potatoes, three times a day; to continue this course for several months.

I placed but little confidence in his adhesion to the prescription, except for a few days. He left the bounds of my practice, and I lost sight of him. In the summer or fall of 1851, [having returned to my old field of labor, after an absence of ten years,] two or three strangers arrived at my boarding house.—One of them, [a healthy looking old gentleman,] advanced, smiling, gave me his hand, and with it a vice-like grip :—I told him I did not recognize him. “What ! not know the man you cured of dyspepsia many years ago?” “Did you stay cured?” “Yes, sir ; I have never felt a symptom of it since.” He informed me that he had occasionally suffered from endemic fevers ; but that there had been no return of the gastric disease.

For my present patient I had [1851] recommended a similar course ; but the life of an itinerant preacher was so irregular in regard to meals, and the want of facilities in procuring proper articles of diet at many places where he was constrained to stay, rendered it impossible, in his view, for him to adhere to such a course with fidelity. Nevertheless, he has been more discriminative and abstemious in eating than formerly, and his health is better. Of course, I only prescribed palliatives.—In his case (and some others) I found myrrh and camphor to be the best.

[TO BE CONTINUED.]

ART. XXXIV.—CASE OF ABSCESS OF ABDOMEN RESULTING FROM
CONSTIPATION.

By F. A. RAMSEY, M. D.

In previous numbers of this Journal, the view has been maintained, that Purgatives are too frequently and too pertinaciously prescribed and continued by practitioners treating Abdominal affections. Its correctness is illustrated by the case of Mr. John Lackey, which presented on the 10th day of February of last year.

Mr. Lackey—a hatter—aged 50, lean but muscular ; ac-

customed to labor; temperate; stooped-shoulder; cough; dyspeptic; habitually costive and liable to attacks, which he had always regarded as cramp cholice, and which ordinarily were easily relieved by opium, turpentine, etc.

The day that I first saw Mr. L., he had breakfasted very freely, fried onions constituting a large proportion of the ingesta; and his bowels had been freely discharged, at two different times, before the attack which occasioned my being called, and which he and members of his family affirmed to be far more severe than any previous attack.

I found him on his hands and knees, his head resting on a chair, vomiting, and with horrid groans giving expression to his agony; which was constituted by a *continuously burning and paroxysmally griping* pain, situated immediately below the eusiform cartilage—evidently in the stomach—and wholly unaffected by pressure. The abdomen was soft, and by no means sore or tender.

After encouraging the vomiting by frequent and copious draughts of warm water, until the efforts or retching effected nothing but the return of the drinks, the stomach being emptied, I administered,

R. Husband's Magnesia, 3j.

Laudunum, 3j.

Water, 3iij m.

S. Take at a dose, repeat every 4 hours; administer warm water injections, at intervals of six hours; and keep constantly to the whole abdomen warm and strong lye poultices, until the paroxysms cease, and the pain is allayed or mitigated.

The first visit was made about three o'clock in the afternoon, and at the second, made after night-fall, the patient was so far relieved as to be able to sleep some little; the paroxysmal feature being wholly destroyed, but the burning character, though very much mitigated, yet persisting.

During the morning of Friday, the 11th, a moderately painful tumor, suddenly appeared in the right hypochondriac region; an oblong oval, with its smaller end laying towards the spine of the ileum; hard and regular; coughing not affecting, and pressure exerting no influence upon it; the fact

of its appearance, giving more uneasiness to the patient than pain; the spermatic cord was traceable under the tumor and into the abdominal ring; the surface of the skin upon the tumor unaltered; and it remained permanently full and well defined in any position the patient assumed.

As the magnesia had not occasioned any discharge from the bowels, and the injections had all been returned without any fœcal discoloration whatever, a rectal tube was introduced to the extent of six inches, and a pint and a half of fluid thrown in, which returned after a few moments without any effect. This was done on the morning of (Saturday) the third day, and the inefficiency of previous efforts induced the administration of castor oil and oil turpentine, which was ejected, and from the irritable state of the stomach fearing excessive vomiting, was not repeated.

Being undetermined as to the nature of the tumor, my then partner, Dr. McIntosh, saw the case with me.

On Monday, the fifth of attendance, having concluded that the tumor was occasioned by accumulation of forcing or fœcal matter in or about the caput cœcum, the rectal tube was again introduced, and with the exception of very slight difficulty when in about six inches, progressed to the extent of thirteen inches, when it seemed that without doing violence to the tissues, it could not be made to overcome a difficulty encountered at a point that distance within the canal. A very large quantity of fluid—how much the notes fail to specify—was thrown up, when the tube was withdrawn with a fluke of fœcal matter adhering to the end, the first appearance of any thing like the ordinary contents of the alimentary canal which presented from the day of first visit. But this injection—like the previous ones—was returned without any alteration whatever.

The surface of the skin over the tumor was noticed to have changed its color, being a little red on Saturday, which progressively increased until on Wednesday, it was highly inflamed, and the parts very painful; the burning sensation of the stomach being very much enhanced. The tube was again introduced, and with but little trouble, at the points at which difficulty was encountered at the previous introductions

—six and thirteen inches—passed its whole length, 22 inches, into the intestinal canal. Three pints equal quantities of Decot's Senna and Flax seed were slowly thrown up; and after waiting a few moments, before withdrawing the tube a very large quantity of tepid water was injected. An hour afterwards he made a very large alvine deposit, very black, and of butter consistence. For several days injections as ordinarily administered, occasioned regular alvine discharges, one or more, each day, gradually assuming a brownish yellow color, and more natural consistence, and seemingly producing relief of the burning of the stomach, which however was constant.

On Sunday, (20th) the tumor was evidently softer, but fluctuation could not be discovered. On Monday, (21st) the tumor pitted on pressure,—œdematous; and near its smaller end was a dark bulla, from which when punctured, discharged a clear serum; the dark discoloration being evidently incipient sphacelation of the skin. On the lower side, and about half the length of the tumor, a soft yellow spot was discovered into which Dr. M. thrust a lancet; immediately out gushed a very thick, dark matter, remarkably offensive, but without doubt puss—no fœcal matter being discoverable, the smell being the only indication of the discharge coming from the intestines or its proximity.

The abdomen for several days had been gradually distending, and the burning of epigastrium enhancing in intensity, until at the time the tumor was punctured, the whole abdomen was tumid, tympanitic, resonant, varying at different points or parts, being less clear or more dark at some than at others; and the burning gave rise to expressions of indiscrivable anguish. This gave way to most unequivocal evidences of relief, immediately upon the exit of matter from the tumor; and the wonted flacidity of the abdomen was gradually assumed.

The discharge from the orifice was constant for very many months after the tumor was opened; the first few weeks requiring a free use of chlorides to render the room even bearable, such was the intolerable smell. But it has since healed, and Mr. Lackey is now an active, though not very healthy,

citizen. Wine, porter, and generous diet were given from the day the tumor was opened, until he was discharged.

On Wednesday, (23d) when at stool, the old gentlemen found that something protruded from the anus, which he could not discharge, and reaching down he broke off a bit, two inches in length. This was repeated, more emerging so soon as a bit was broken off, until finally about one foot was expelled, of symmetrically moulded mass, about one inch in diameter, and perfectly dry, and of millet seed sized granular matter.

The question as to the nature of the tumor—whether an abdominal abscess, obtaining its fœtid odor from its proximity to the intestines filled with hard matters causing an excessive generation of gasses, or whether proceeding from the intestines—might be discussed; but it is not deemed necessary. No fœcal matter escaped the opening, and therefore, it was most probably an abscess of the abdominal walls.

Knoxville, July 2.

ARTICLE XXXV.—SURGICAL CASES.

By J. E. THOMPSON, M. D., OF MO.

CASE 1.—*Dislocation of the fore-arm backwards; reduced six months after the injury.*

John McClay, ætas 26, a farmer, of good habits and constitution, came to me on the 20th of March, 1853, requesting I should examine his left arm, which was the cause of great inconvenience and pain. Upon examination, I found the arm one inch shorter than the right; inflexible, and bent at right angle. The radius projected considerably above the olecranon posteriorly, with a depression on each side; the extremity of the os humerus pressed strongly against the biceps muscle, which was swollen, and painful on pressure.

Upon inquiry with respect to the accident, &c., he gave me the following history, viz:—On the 28th of Sept. 1852, while gathering apples, he fell from an apple-tree upon his left side, the left arm receiving the greater portion of his weight. He

supposed his arm was broken ; whereupon, a Physician was immediately called, who pronounced the arm “not broken but *unjointed*.” The Physician made one or two extensions, bound it up and left it “doing well.” The patient suffered the most intense pain for weeks ; it became much inflamed—patient was afraid it would ulcerate. After about six weeks it grew less painful, but remained bent, and inflexible. Patient says, he has had no use of the arm since the accident.

I attempted bending the joint, but failed, which caused much pain. He insisted I should attempt its reduction. I told him of the evils which might result from such an attempt, but he still insisted. I attempted and executed the reduction in the following manner, viz:—After placing my patient in a chair, I grasped his wrist with my right-hand, placing my knee on the inner side of the elbow joint, pressing down the ulna and radius, at the same time bending the arm gradually and firmly. The capsular ligament evidently was the subject of considerable laceration, but no other injury was apparent. The arm was immediately bandaged in a bent position, less than right angle with the upper arm, the bandage kept wet with a lotion of camphor, and suspended by a sling for three weeks.

August 29th, '53. I saw the young man, and upon examining the arm found it *in length, strength, form and motion, perfect as the other*. He affirmed his “arm was as strong, and useful as ever it was.”

CASE 2. *Compound fracture of the Os Humerus—Dislocation of the Ulna with Oblique Fracture of the Radius.*

Pat Rine, aetas, 36, an Irish laborer upon the Pacific Railroad, of rough habits and robust constitution, was thrown on the 12th of March, 1854, by the arm of a darick from the abutment of a bridge, some thirty feet, upon fragments of rock ; he was taken up senseless, his comrades supposing him dead. In thirty minutes after the accident I saw the patient in great pain, but sensible. The darick struck him upon the right arm, tearing the muscles, &c., from the bone some four or five inches ; alarming hæmorrhage ensued, the brachial artery having been lacerated, which, however, was finally arrested by cold applications and pressure, after the loss of some forty or fifty

ounces of blood. The os humerus was fractured transversely about the middle of the upper third; the hand was thrown backwards; I could distinctly feel the extremity of the ulna above the pisiform bone, beneath the tendon of the flexor carpi ulnaris. By rotating the radius, crepitus detected oblique fracture of the radius about two inches above the articulation, the fractured extremity of the superior portion of which being situated under flexor tendons of the hand. After having adjusted the os humerus and the brachial artery by ligature; and the edges of the wound brought together, and secured by lint and adhesive strips, two cushions were placed behind and before, firmly bound down by a roller; over these, splints, lined with pads, were placed reaching from the shoulder to the elbow, well secured by a long roller. After the radial fracture was in like manner secured, the patient was seated in a chair, and having grasped the wrist with my left hand, reduced the dislocation by extension, and counter-extension over my knee. The arm was then suspended by a sling, and ordered to be kept wet with an evaporating lotion. Ordered the bowels to be kept open by laxatives, with spare diet for some days.

No more hæmorrhage followed; the wound healed gradually, and at this time, the 26th of May the arm admits of flexion and moderate use; in two months more will be wholly well.

CASE 3.—*Incised Wound of the Scalp; Fracture of the Skull—
with wound of the Brain.*

Mike Conley, ætas 24, an Irish laborer upon the Pacific Railroad, of intemperate habits, on the evening of the 23rd of March, 1854, while in a drunken quarrel, was struck with an axe upon the head by one James Foley. 7 o'clock P. M., saw the patient one hour after the accident; the axe entered the skull about the center of the os frontis, fracturing one inch of its upper edge, passing laterally into the left os parietal, wounding the left hemisphere of the brain. On introducing a probe I found the instrument had penetated the *dura mater* and *pia mater* some two and a half inches in length in the center of the wound, entering the brain near *three quarters of an inch*, through which the brain was oozing in small portions mingled with blood. After sponging the coagulated

blood from the wound, and shaving the hair from around it, I secured the wound by a suture, and lint, keeping it wet with cold lotions. One hour and a half after the accident, I took six ounces of blood from the arm. Concussion but slight; lying in a comatose state; breathing easy and natural; pulse steady, with its usual velocity; pupils a little dilated; attempted to arouse him; but with difficulty excited; asked him if he knew who hurt him, he muttered, and answered incoherently. He had vomited before my arrival. 8 o'clock, P. M., took four ounces of blood from the arm; talks a little, but answers questions slowly; pulse 80; breathing easy and natural; upon examination, found the bladder distended from the accumulation of urine, which the introduction of the catheter relieved. Gave the following powder, viz:—

R. Hyd. Chlo. Mit. 7 grs.

Pulv. ipec. 3 grs.

Fiat pulvis. To be followed in six hours by castor oil.

24th. Head a little painful; took six ounces of blood from the arm; quite cheerful. Ordered the dressing of the wound to be kept wet with cold lotions. Has no difficulty in passing urine. Pulse 82; respiration natural.

25th. Rests easy in every respect: took a little corn meal gruel. Ordered patient to lay quiet; wound kept wet with cold lotions. Mind rather dull. On the 28th I removed part of the ligatures: and on the 2nd of April removed the rest. Diet, beef tea and gruel. Gave a dose of calomel and ipecac, followed by oil. On the 15th of May patient walked out for the first time. At this time he suffers no inconvenience, except a throbbing in the situation of the wound when attempting to lift a weight. It is to be feared the mind will suffer from the injury.

CASE 4.—*Aneurism of the Brachial Artery; Successful operation.*

Milton Troy, aetas 40, a laborer of intemperate habits, quite muscular and good constitution, came to me on the 20th of April, 1854, with Aneurism of the brachial artery caused by bleeding in the right arm. According to Sir Astley Cooper the aneurism was in its *third* stage. The tumour was about the size of a hulled walnut, rather hard, pulsations very strong; very painful upon moving the arm. The integuments

over it were a little dark, and the skin somewhat inflamed. I advised an operation as the most certain cure in the present case, to which the patient assented. The operation was performed by first making an incision in the middle of the arm between the shoulder and elbow, on the inner edge of the biceps flexor cubiti, three inches in length, directly exposing the brachial artery, its vena comites, and the median nerve; by a little dissection of the artery from the nerve and veins, a probe was introduced under the artery, armed with a small ligature; the probe was then withdrawn, leaving the ligature under the vessel, which was tied round the artery, one end cut off, and the other left hanging out of the wound. The edges of the wound were then brought together and secured by adhesive strips, small interstitches being left to permit the escape of discharge. Flannel was worn on the arm to keep it warm, and bottles of warm water to the feet, as a prevention of gangrene. As soon as the ligature was secured, the pulsation in the tumour ceased. The arm was suspended by a sling; and Pil. Hyoscyami *mo.* iv, to be taken in the morning and at bed-time for eight days, with six ounces of Lig. Magnes. Citrat., three times a day for six days; afterwards, eight ounces once a day for a fortnight. Patient not to use the arm for the same length of time. Patient recovered rapidly; now is quite well.

CASE 5.—*Dislocation of third true Rib of the right side.*

Pat O'Connel, *aetas* 20, an Irish laborer upon the Pacific Railroad, of intemperate habits, on the 9th of May 1854, while intoxicated, attempted to walk a plank thrown over a culvert, fell some twenty feet upon fragments of rock below. When I arrived, he was perfectly insensible, from the effects of liquor however. Upon examination I found the third true rib of his right side dislocated at its posterior extremity forwards on the body of the vertebræ, with contusion of the adjacent parts. I immediately extracted, three hours after the injury, ten ounces of blood, and applied a bandage bound by a long roller to confine the motion of the rib. Ordered Pilulæ Cathar, *Com.* no. 4, immediately and Pil. Hyoscy. no. 3, at bed-time for four days. Patient recovered in a short time.

Missouri River, Osage co., Mo., May 1854.

ART. XXXVI.—A VISIT TO KENTUCKY.

DRS. KING, CURREY & WOOD:

Gentlemen—Though we have often seen Nashville, both by day, and by night, it probably never seemed so beautiful as on the night of our departure (July 27th) for this my native State. Few cities, whether large or small, present a more attractive appearance, than Nashville, when seen by her numerous, beautiful and high-arching gas lights. After taking our seat and passing from street to street, the coach was finally not only filled, but *bedecked* with quite a variety of passengers; though we soon learned that the largest, and by far the most disagreeable one “on board” was “King Alcohol” and who—if you will allow us to personify the *spiritual*—exerted a greater influence over his servile subjects, than does the Autocrat of Russia. Wherever we halted, if water was in view, the King’s subjects unlike another’s:

“Marched *down* the hill,
And then marched *up* again.”

They did not, however, return to the stage, until with upturned eyes, and the practice of certain characteristic manœuvres, they had given additional evidence of their allegiance to their sovereign.

I have, ever since old enough to vote, been ready, and even anxious to join an army which would wage an aggressive warfare against this King. And when the Tennessee legislature, prompted, as I must believe, by distrust of the ability of the people to govern themselves, refused to permit those who had elected them, to vote in reference to a subject of such vast importance to the health, the morals and religion of any country; I say, when that thing occurred, I was *more anxious*. But after my recent disagreeable association with the King and his willing subjects, I am *most anxious*, indeed quite *determined*, other things being anything like equal, to vote with that party which will oppose most strenuously the extension of the area of his Majesty’s influence: Henceforth, therefore, in the exercise of the elective franchise, we expect

to have reference to the general good, and to vote for the man who becomes the bold and fearless advocate of the Maine Liquor Law.

Arrived at Tyree Springs, twenty-three miles from Nashville, we met with a large number of visitors from the City, who seemed to be as happy as "birds let loose." Some were doubtless there to meet the "loved ones," and hoping to be precipitated into matrimony; others there for health, the stomach's sake; and a few, no doubt, just to be away from home. Tyree's is a pretty and pleasant place, and, more than most watering places, deserves a liberal patronage. The Military School located here, we casually learned, was succeeding pretty well; but as it was vacation, we were pleased to see only one man sporting brass buttons and epaulettes.

Breakfast over, or rather the coachman's horn blowing, we hastily left the table, paid our bill, as though we had partaken bountifully, resumed our seat and were again inhaling the fumes of whisky, and on our way to the once "dark and bloody ground."

About midway between Nashville and Bowling Green, we crossed the line dividing the States of Tennessee and Kentucky, a line as intangible to us, as the traits of character distinctive of the citizens of these sister States. A change of coaches, etc., now facilitated our more speedy approach to Franklin, the county seat of Simpson county, from which place, after dinner, we re-entered the stage and after passing many sun-burnt fields, and *now* cheerless looking farms, we were brought into the beautiful city of Bowling Green, and to the door of the Hotel so well kept by Maj. Shirley. Here, early in professional life, we took up our residence for several years; and here spent some happy days, not however, uninterrupted by painful anxiety and hours of sadness. And here, in company with family and friends, we linger for the present, but expect soon to leave for the Mammoth cave, where doubtless many of our readers would like to be during the present range of the thermometer, which in this parched and barren country is from 100° to 103°.

Before quitting this place, however, I must talk of Medicine and tell you of our associate ARCHISON, who, by the way, you

will be glad to learn preserves his physical proportions despite hard labor and sultry weather. His appearance as we first met him just from his buggy, in riding apparel—long gown, broad brimmed hat, etc.—reminded us more of a pampered prelate or the lord Mayor of Shakertown, than the laborious and cultivated medical gentleman. His professional duties have been so unremitting and urgent, as to have called him so much to the country that I have had but little of his society.

Since cholera subsided in this county, dysentery has prevailed most distressingly. In several neighborhoods pervading almost every family: and in a large number of instances is said to have been complicated with typhoid fever. The fatality resulting from this type of disease is measurably confined to those districts of country where there has been no rain for ten or twelve weeks: A fact too, recognised, and talked of by the common people, and one, which may be justly regarded as militating somewhat against the malarial origin of the disease. The treatment here resorted to in pathognomic dysentery—or flux, simply—is very much such as would be given it in Nashville, viz: Mercurials, Venesection, anodyne enemas, counter-irritants, seidlitz powders, low diet, mucilaginous drinks, etc., but complicated with the anomalous features above mentioned it becomes, owing to the contra indications, a peculiarly intractable malady, and one in the treatment of which, there are no laurels to be won, met however by some of the Bowling-Green physicians by quinine, opium, scarrification, leeching or either, as the diagnosis may suggest to meet and subdue the most fearful refractory tendency of disease.

The death but a few days since, of Doctor Bowden, of Russellville, Ky., is mentioned here with general regret. Dr. Bowden a few years ago was a minister of the gospel, and for several years sustained the relation of pastor to a congregation of Methodists in this place, and by his courteous gentlemanly bearing, won the admiration of all who knew him. It was not until after repeated attacks of hæmorrhage of the lungs that he abandoned the pulpit and studied medicine. He was just entering upon the practice when by the ravages of

that insidious foe to human life, typhoid fever, he was brought to his grave. He was a good man and but left the sacred desk to go about doing good.

Since our citizenship in this place, though but a little while it seems—many deaths have occurred in the community, and the citizens have otherwise, very materially changed, some from leasion of nutrition, then lean and Casius-like,—are now of full plethoric habit, presenting decidedly abdominal preponderance, while others then of unusual vigor, embon-point, bear the impress of debility, of age and atrophy.

“And thus they totter down.”

From Bowling-Green we visited the Chalybeate Spring, which unquestionably furnishes the best water of the kind we ever tasted—if it had a higher temperature we should think it an artesian stream, boiling up as it does from elevated table lands—such as would be called a mountain with us—but the water is cool, delightful and beautifully translucent. We found here a number of the inhabitants of Bowling-Green, rapidly recovering from debility and attenuation superinduced by attacks of cholera. The very high, and just appreciation of the tonic properties of this water—its proximity to the Louisville and Nashville Railroad, to the present well macadamized state-road, and the Mammoth Cave, will doubtless make it in all coming time a favorite haunt for the invalid, a resting place for the weary traveler; and when more elegantly improved, a delightful retreat for the city and village belles and beaux. At the solicitation of our company, we one afternoon left the Springs, and after a few hours rough, and we suppose healthful riding, we were brought, probably, to the most wonderful, as well as interesting point on the American continent, the Mammoth Cave; we however, had so frequently seen this place, permeated its rugged recesses, crossed and recrossed its echoing chambers, admired its solemn grandeur; heard the music of its waterfalls and floated upon its crystal streams; that now, the most that we even hoped for, was, that these scenes and sounds, might awaken in our mind memories of the past. Early in the morning we entered the Cave and after passing its entire length, and when the day was well nigh spent returned to the spot where once we met Dr. Mitch-

ell and other gentlemen, who were the victims of phthisis, for whom the then proprietor, Dr. Croghan had generously fitted up a number of rooms in the Star Chamber, hoping that the uniformity of temperature, etc., would be conducive to their restoration to health. We felt a sort of irresistible impulse, to re enter these deserted chambers, we did so, and in reflex thought, saw again the solitary lamp, the anxious watcher, and the open Bible, and heard o'er again from lips', even then chilled with death, hopeful expressions as of permanent relief. But now, alas! they are all! all gone; all were doomed to melancholy disappointment and early death. The amiable Dr. Mitchell and his lonely associates, came out of the Cave but to go down to the more lonely grave; since which, Doctor Croghan, and the sub-proprietor, Mr. Miller, have both died of Phthisis Pulmonalis; and what is more remarkable, within a few days of each other. Yours, &c.,

W. P. JONES.

ART. XXXVII.—MUSCULAR CONTRACTION.

In the July No. of the *Southern Journal of the Medical and Physical Sciences*, Dr. T. M. Jacks, of Helena, Ark., says: "Every physiologist of note is willing to admit, that *muscular contraction* is an interesting theme for philosophic speculation. Nevertheless, so far as my own reading extends, there has not been, in modern times, *even an attempted elucidation* of this complex phenomenon. That muscles may and do contract, we all know, but the *how* or *why* do they contract, are questions which medical philosophers have seldom dared to propound. I propose to break this chain fearlessly, to cross this physiological Rubicon. As to the success of my adventure, I shall leave that for others to decide."

After consideration of the functions and structure of muscles, Dr. Jacks in speaking of the *granules*, calls them "muscular atoms," which are polar in their nature, and like all polarized atoms, will, when subjected to Electric influence, mutually attract each other, and "*in obedience to their attractive*

force, approach each other, until their proximity causes an exchange of electricity," when mutual repulsion will occur. "*Their approximation is CONTRACTION; their repulsion is RELAXATION.*" Such is the explanation offered by our author, and one which I have no doubt he will be able successfully to sustain.

It is not to the explanation he has offered, that I wish to call the attention of the profession, but with his bold, distinct, manly, and I have no doubt, *honest* claim to *originality* in presenting it. Many others have also presented claims, as being the *first* to promulgate particular doctrines, and afterwards suffered the mortification of the discovery, that instead of *new* ideas, they had only presented those that were long since familiar to the minds of philosophers. That such is the fact with Dr. Jacks, can be shown by the following extract from an article on Galvanism, published by me in the New York Scalpel, for November 1853.

"Let us endeavor to learn the nature of the *vis nervosa* or vital power, by learning the nature of the nerve structure. As has been repeatedly demonstrated, and admitted by all anatomists, the trunk of the nerve is constructed and arranged essentially as a *conductor*. One extremity of the nerve, the origin—of those, of course, whose origin has been demonstrated, is arranged in this wise: The end is enlarged into a single or double swelling or knob, frequently many times the diameter of the nerve branch and this knob, or the two knobs, and of the same substance as the nerve tube, but without the isolating white covering. Instead of this covering, there is, as it were, tied over and surrounding the end of the nerve, a *sac* filled with fluid, in which the end of the nerve floats freely; over this is another similar sac or pouch, also filled with a liquid, and tied over the nerve a little distance from the extremity; and over this another and many others, all containing a fluid and surrounding all the enclosed, so that Volta's pile existed, literally in the heads of men before he had demonstrated his method of inducing or producing the voltaic current.

The other *extremity* of the nerves has never been demonstrated, yet points have been discovered where they loop around and inosculate with other nerves, and also come in

contact with the different structures of the body. At these points, the white, or isolating surrounding substance is also wanting, so that nothing prevents the vital power from coming in contact with the ultimate structure of the part, in the same manner as the galvanic influence would come in contact with the hand or any part of the wire that might be uncovered.

“Let us now examine how it is that galvanism, or the *will* of the individual can be made to act upon a muscle, *so as to produce motion or a contraction of the muscle.*

“If we take a thin piece or ribbon of gum elastic, and insert in that quite near each other, a continued series of pieces of soft iron, place the ribbon slightly on the stretch, and then, by means of the galvanic battery, galvanize, or charge with galvanism, the piece of iron nearest one end, it will attract the next to itself, and that the next one, and so on until each little magnet has come as near the conductor of the battery as it can get; and if the ends of the ribbon are attached to springs or other yielding substances, they will be approximated toward each other, and kept there as long as the supply of galvanism is kept up. Break the circuit between the battery and ribbon, and it returns to its original form; connect it again with the battery and contraction ensues. *So it is with the muscles of the animal economy.* While the connection is perfect, through the nerves, with the brain, the action of the *will* at once produces contraction, motion; but when either by pressure on the nerve, or by severing it, the connection is broken, then the effort of the will produces no effect, and the muscle or link is said to be paralyzed. Even now, however, the application of our *artificial* galvanic current, will induce action in the muscle; and if the nerve connecting the muscle with the brain be not destroyed, in many instances the proper application of this artificial stimulus will rouse the torpid nerve, and thus restore the muscle to its proper functional use.”

In the article from which the above extract is taken, I do not claim any *originality* in the ideas advanced, although I think it will be admitted, that I pass the Rubicon on a bridge of ideas identical with those of Dr. Jacks.

I think the same views have been advanced by M. Kratzenstien, of St. Petersburg, by Golding Bird, Liebig, Matteucci, Pfaff, Ahrens, Hemmer, Aldini, Donne, Humboldt, Faraday, Prevost, Dumas, Wilson Philip, Dulong Desprets, Laplace, Brodie, Muller, Carpenter, Achard, Chaussat, Tuson, Wilkinson, Ramsbotham, Radford, Cummings, Dewees, Ware, Channing, Hodgkin, Abernathy, and many others; and although I might not be able to make extracts from the writings of each of the above named authors, *directly* teaching the same doctrine, yet there are abundant remarks from them on *collateral* subjects to warrant my conclusions.

I am pleased that Dr. Jacks has given the subject of Electricity so much attention, and have no doubt with his mental constitution, his researches will be rewarded with plenty of original discoveries of great value to the profession. And I would say that its influence upon the *Glandular Structures*, and upon the *Lymphatics*, so far as I have been able to learn, presents a broad field of nearly virgin soil, doubtless containing many gems, to repay the labor of prospecting.

C. H. CLEVELAND, M. D.

Cincinnati, Ohio, July 1854.

RECORD OF THE MEDICAL SCIENCES.

PRACTICAL MEDICINE AND SURGERY.

1. *Topical uses of Iodine.*—The value of iodine as a counter-irritant is year by year becoming more generally appreciated, and is yet much less so than it deserves. The iodine solution will probably, before long, entirely supersede mustard plasters, being at once more efficient, and much less disagreeable in its employment. The following notes on its application will, perhaps, not be useless; they are the results of very extended observations in the hospitals generally, but more especially in those devoted to the treatment of diseases of the chest—1st. In the pleuritic stitches, or aching pains in the

chest, so commonly recurrent in the course of phthisis, the iodine paint,* applied over the affected spot, usually affords, without any expense to the vital powers, much more relief than either leeches, sinapisms, or blisters. It may be used in almost all conditions of the system with perfect safety. 2d. In cases of aphonia or hoarseness, depending on inflammatory thickening of the parts concerned in the production of voice, great benefit may be derived from painting the iodine over the front of the throat externally. 3d. If the mucous lining of the fauces, etc., be thickened and congested, the solution may, without risk, be freely applied to the parts itself. 4th. In the treatment of chronic enlargement of the tonsil, the application of iodine to the gland itself will sometimes effect a cure, but is much less generally efficient than constitutional treatment. 5th. In cases of chronic pleuritic effusion, or of consolidation of the lung, the solution should be painted over a large extent of the diseased side, and is of great service when the period for blistering or leeching has passed. 6th. Applied extensively over the belly, iodine is a useful counter-irritant in the incipient stages of strumous peritonitis. 7th. In strumous ophthalmia, the application of the pharmacopœial tincture to the skin of the lids is often effectual in relieving intolerance of light; much benefit may also be derived from like practice in cases of granular lids. In both instances, frequent repetition is necessary. 8th. In all forms of periostitis, whether syphilitic, strumous, or the result of injury, iodine paint is invaluable. 9th. It is needless, perhaps, to mention the employment of iodine as a local application to bronchocele, to inflamed joints, and to enlargements of the absorbent glands; with regard to the latter, a point is worthy of being borne in mind, to which Dr. Budd was, we believe, the first to direct attention, viz., the propriety of applying it to the skin beyond, and not over the affected gland, so as to allow of its being absorbed and taken through the gland in the course of the lymphatic circulation. 10th. Injections of iodine into the cavities of abscesses, glandular or otherwise, appear most frequently to produce good results, and to be unattended, except in very exceptional instances, by any risk. The theory of their use is, that they provoke adhesive and not suppurative inflammations, as, for instance, in the radical cure of hydrocele.

* The following is the formula for the solution alluded to:—℞ Iodinii ℥i; sp. vini rectificati ℥i; Ft. solutio. This should be allowed to stand by in a glass-stoppered bottle for some months before required for use. It then becomes thick and syrupy, rapidly dries when applied to the skin, and does not run. It should be applied with a camel-hair brush, one, two, three, or more coatings, according to the wished-for effect.

11th. In cases of contracted cicatrices after burns, in which treatment by extension is adopted, the application of iodine is of advantage in causing the absorption or softening down of the indurated structure. Some cases illustrative of this have recently been under care in the Middlesex Hospital. Care must be exercised, or ulceration may be caused. 12th. In cases in which the patient cannot be got to swallow medicine, as now and then happens in phagedænia of the throat, the specific influence of iodine may be induced by its endermic application, the best method being to paint over large surfaces of skin the pharmacopœical tincture, choosing a different part each time.

The reason why, as a counter-irritant in all forms of chronic inflammation, iodine appears so superior to other applications, is doubtless to be found in the fact that it is capable of absorption, and may thus act beneficially in two distinct methods.

We have enumerated above some of the chief uses to which the iodine solution is daily put in the practice of the London Hospitals, but do not profess to have mentioned all. These are, however, enough, we think, to prove its right to a place on the dispensing table of every Medical practitioner.—*Med. Times and Gaz.* April 8, 1854. [*Amer. Journal Med. Sciences.*]

2. *Neuralgic Headache.* BY J. MURPHY, M. P.—Neuralgic Headache is synonymous with those headaches described by some old authors as hemicrania, by others as clavus hystericus, and by Dr. Graves as hysterical congestion. It is peculiar to females, and to females during a certain period of their existence only, from puberty until the final cessation of the menstrual secretion. Dr. Graves gives a graphic description of the symptoms and of the injurious effects of the usual routine treatment. He calls it hysterical congestion; but he seems not to have understood its true pathology. There is no doubt of its being hysterical; but there is no congestion, for the seat of the pain is in one of the nerves of the scalp, which can be easily proved by a slight examination, and it is therefore an external headache. The error may have arisen from his having met with cases where this headache was in combination with the anæmic headache. The proper name which should be bestowed on this headache, in order to facilitate the diagnosis, is spinal irritation of the sub-occipital nerve. Spinal irritation is beginning to be well understood in this country; we are indebted to a French physician, M. Valleix, for the discovery. Since then many other disorders, such as irritable mammæ, pleurodyne, and neuralgic headache,

are discovered to originate in functional derangement of the spinal cord; and I believe whoever will carefully compare these disorders with cases related by Dr. Tilt, must come to the conclusion that they are nothing more than symptoms of subacute ovaritis. They are hysterical disorders, and *hysteria is subacute ovaritis*, which displays its phenomena on the sensitive and motive nerves of the spinal column.

On comparing the neuralgic headache with the phenomena of spinal irritation in other parts, we find how exactly they coincide. Like spinal irritation, it is a form of hysteria, and therefore peculiar to females. It is not only peculiar to females, but attacks them only during the menstruating period of their existence; that is, from about the thirteenth to the fiftieth year. It is exacerbated just previous to menstruation, makes its first attack on the left side, and rarely passes over to the right side.

Cause.—As this form of headache is peculiar to the female sex, it must therefore have its origin in some organ peculiar to them; and as it is felt during a certain period of existence only, the organ must have the performance of its functions limited to that period. As there is no organ by which these two facts are explicable, unless the ovary, it is not unphilosophical to conclude that the disorder proceeds from the ovary. There is certainly also the uterus, but the functions of this viscus cease on the removal of the ovaria. We daily meet with the uterus inflamed, ulcerated from cancer or cauliflower excrescences, distended by hydatids or pregnancy, producing moles and polypi, but none of the phenomena of spinal irritation are present. In the married female, who bears children regularly, it is scarcely ever known. Before the commencement of menstruation, or after its termination, it is equally rare.* What is the state of the ovary, I do not pretend to affirm. If inflammation, yet it has often yielded to tonics; it may depend on moral causes, but such an explanation has never satisfied me. An accumulation of feces in the rectum has appeared to me as occasionally the source of irritation; in a few cases, I think it was traceable to ascarides in the rectum. We witness the action of cold in paralyzing the trunk of a motor nerve, the portio dura, as it escapes from its cranial foramen; but cold cannot be a cause of this headache, otherwise why should not the male sex equally suffer.

Occasionally, spinal irritation, in other parts, has been ob-

* While writing the above, I referred to Dr. Tilt's work on Diseases of Females, first edition, and in page 58, he gives the valuable fact that he found the right ovary affected in only five out of seventeen cases. Now, it might be worth inquiry to ascertain whether the left had not been previously affected, but that the irritation was transferred to the right, as we see in ophthalmia occasionally.

served earlier in life, but I have not met the headache; and, as the headache has occurred some years before the appearance of the menses, so I believe it possible it may arise a few years after their total cessation. The headache resembles spinal irritation, also, in a curious and hitherto unexplained phenomenon; *commencing* on the left half of the body, we occasionally meet with it also on the other side; but I have never discovered that it began there, nor is it ever restricted solely to that side. When both sides are attacked they are equally so, the left being by far the more painful. As another proof of its being spinal irritation, if further proof be necessary, we find it under two distinct forms, and these forms are easily distinguishable by the nature and extent of the pain. In the one, it is confined to the exact tract of the sub-occipital nerve, it is lancinating or shooting, intermitting, and chiefly felt at its termination in the integuments of the temporal region: when severe in this spot it is the *clavus hystericus*. When the whole course of the nerve and its branches are implicated, the entire left side of the scalp is very tender, sometimes exquisitely so; this is the hemicrania. It is singular how much this disease is confined to the left side of the head; we find such to be the fact in ninety-nine cases out of a hundred. It seldom reaches the aggravated form of *clavus hystericus* without being accompanied with other well-known hysterical symptoms, which, of course, facilitate the diagnosis.

Diagnosis.—This headache attacks females exclusively. I have never heard or read of men suffering from this kind of headache. It is only during the menstruating period of life that even females are liable. The pain is referred to the left side of the head; it is worse on the approach of the menstrual flow; it is found in the track of the sub-occipital nerve. The course of this nerve is well known; it accompanies the sub-occipital artery, emerging from the spinal canal; it passes along the back of the head, midway between the mastoid process and the mesial line, sending branches to the integuments which cover the parietal protuberance, and terminating in the temporal region. Its course, from its exit to its termination, can oftentimes be accurately ascertained, from the pain induced by pressing upon it. Although the head suffers, pressure may not always produce the pain, for it is intermitting. In general, however, pain may be thus detected in one of three places; on the left side of the neck, where the head and vertebræ join, at the parietal protuberance, or in the temporal region; when concentrated in the last spot, it is the well-known *clavus*. It is sometimes painful in all three, and sometimes in its whole track. It is, however, rare that the tenderness is

absent in the occipital region. The part suffers more when pinched than when pressed. When the branches as well as trunk suffer, we then have hemicrania, a most painful form, less intermitting than the other, and preventing the unfortunate girl from lying on the affected side. It is more commonly met in the unmarried female, from the twenty-second to the thirty-fifth year; but the married females who are childless do not escape.

This headache is chronic, intermitting, may continue for days, weeks, or months, then subside, and return after the lapse of months or even years. A first attack is seldom felt before the twentieth year, nor after the thirty-fifth. The pain is generally of a shooting kind, darting from the neck towards the temple, and never towards the neck, by which it is easily distinguished from odontalgic pain. Neuralgia of the left mamma (irritable breast), or of the seventh or eighth intercostal (pleurodyne), frequently coexists. It is sometimes found in combination with the anæmic, but more rarely with the congestive headache. From caries of the body of a vertebra it is easily distinguished by the pain being superficial, being confined to the left side of the spine, by its not becoming worse when the head is flexed on the chest, nor by jumping, nor by pressing the head against the spinal column.

This neuralgic pain sometimes accompanies the rotated spine. It is singular how often toothache is mistaken for headache, especially for this form. In both, the pain is described as shooting in the course of the nerves, but in toothache the pain shoots towards the neck and ear, leaves no tenderness of scalp, never goes so high as the parietal protuberance, and is more correctly discovered by learning that a paroxysm is brought on by food, sometimes when warm, at other times when cold.

Treatment.—If the disease be not complicated, we can promise relief. The bowels should be kept open by regulated diet, and by aperients, such as castor oil, olive oil, lenitive electuary, powdered rhubarb, soluble tartar, or the compound rhubarb pill. If the bowels are obstinate, an enema of a pint of cold water daily answers the double purpose of removing the contents which may irritate the ovary; and as a local application to the organ chiefly in fault. The cold hip-bath is a valuable remedy when the constitution is vigorous, but all these things are inferior to sea-bathing. Stimulants should be abstained from, employment should be found for mind of body, but physical efforts are preferable. The sedentary position required by the needle, especially in solitude, is very injurious. A sinapism over the exit of the nerve gives great

temporary relief; a vesicating plaster of cantharides is better, but it oftentimes leaves a mark, and therefore, on account of sex, age, and position in life, may be objectionable. A croton oil liniment, made with one drachm of oil and one ounce of camphorated tincture of opium, and rubbed until pustules appear, is preferable, as it leaves no permanent blemish. The belladonna plaster, mixed with powdered opium, or a liniment of extract of belladonna, rubbed with mucilage, are useful and unobjectionable remedies. Speedy relief is occasionally afforded by veratrine or aconitine ointment, made with from four to six grains to half an ounce of spermaceti ointment. The finger used in rubbing should have a piece of bladder interposed.

One ounce of tincture of aconite, with seven ounces of rose-water, is a safer remedy to trust to inexperienced hands than the veratria. The internal medicines are not so easily chosen. Tonics are frequently required, and they may be combined with anti-hysteric remedies. The disulphate of quinia may be exhibited in a strong infusion of valerian; compound iron pill, with assafoetida in large doses, is very beneficial. If there be irritability of the stomach co-existing with profuse menstruation and leucorrhœa, pills of valerianate of zinc, half a grain three times a day, with one drop of creasote, answer many intentions. If there be much debility, the sulphate of iron may be combined with infusion of valerian and ammonia, or the ammoniated tincture of valerian may be prescribed. The pain is sometimes so acute that some relief is quickly demanded, and half a grain of morphia will lessen the pain for a while until other remedies have time to act. For the leucorrhœa, one drachm of acetate of zinc to one pound of distilled water is useful as a lotion. But we are sometimes perplexed, for the tonic treatment is not the best for a full plethoric female; leeching or even general bleeding is required, but the cases are rare which require general bleeding.

If the patient be not very weak, and there is much leucorrhœa and menorrhagia, the treatment laid down by Dr. Tilt for subacute ovaritis should be adopted. He leeches in the menstrual interval, and then blisters the iliac regions; but as his work is universally read, the treatment is well known. Sea-bathing, when practicable, should never be omitted.—*Lancet*, May 20, 1854. [*From the American Journal of Medical Sciences.*]

3.—*On the Transmission of Secondary Syphilis from the Male Parent to the Fœtus in Utero, and the subsequent infection of the Mother through the medium of the Fœtal Circulation.* By W. TYLER SMITH, M. D., Physician Accoucheur to St. Mary's Hospital. (Read before the Harveian Hospital.)

In bringing before the Society a few cases bearing chiefly on the transmissibility of secondary syphilis to the fœtus in utero, from the male parent, I cannot pretend to offer anything novel, or to claim any interest beyond that which attaches to a very important subject; but I trust I may elicit the experience of the Fellows of the Society, many of whom have without doubt seen cases similar to those about to be described.

When we consider the length of time during which syphilis remains in the constitution after it has once passed into the secondary form, the Protean shapes it may assume, and the great difficulties which attend any attempt to trace the moral histories of individual cases, it is not surprising that discrepancies of opinion should exist respecting the transmissibility of constitutional syphilis. After John Hunter, the greatest name in syphilis is undoubtedly that of M. Ricord. I believe I may briefly state the doctrines of this indefatigable observer to be as follows:

He believes that when the primary poison is taken, it remains during several days in a state of incubation, during which time the poison may be destroyed, without any danger of the subsequent occurrence of constitutional disease. That after this time chancres take on certain characters, and infect the whole constitution, giving rise to the train of evils known as constitutional syphilis. He does not believe that a sore or chancre, capable of communicating syphilis by inoculation, can ever arise as a secondary symptom. He believes that for the presence of constitutional symptoms it is absolutely necessary that a primary sore should have pre-existed, except under two conditions—namely, that a man suffering from constitutional syphilis may impregnate a healthy woman, and the germ may, in the first place, have constitutional syphilis, and, in the second, communicate it to the mother, without the existence of any primary disease in either mother or child. Here, I believe, syphilitic contagion stops, in the opinion of Ricord. He does not believe in the communication of syphilis by the secretions, or by the discharges from secondary eruptions or sores. Nor does he believe that a child affected with secondary syphilis can communicate the disease to a healthy nurse, or that a nurse affected with constitutional syphilis can convey the disease to a healthy infant through the medium of the milk.

Other French writers, and authorities upon the subject in this country, assert, on the contrary, that a man or woman having secondary syphilis may communicate it during intercourse in a direct manner; that a child having congenital or secondary syphilis, may infect its nurse in the act of sucking, the nurse having been previously free from the disease; that the nurse, thus diseased, may become a medium of infection to others; that an infected woman, suffering from secondary syphilis only, may infect a healthy child, through the milk. These are the views held by Dr. Whitehead, in his work on "Hereditary Diseases," published in 1851, and by Mr. E. Wilson, in his work on "Syphilis," published in 1852. Mr. Wilson goes so far as to assert the identity of gonorrhœa in which no urethral chancre existed. Cases are given which appear to warrant these views, but the whole question of the transmission of secondary disease is in such an unsettled state that no apology can be needed for introducing it in a Society like the present. The following cases bear upon some of the points in dispute, and it will be impossible for any one who pays attention to this subject not to acknowledge, that it is one whose importance, both as regards medical science and the physical degeneration of mankind, is much underrated or overlooked.

CASE 1.—The following case came under my observation at St. Mary's Hospital, and I was as careful as possible in tracing its history:—

R—S—, a healthy young woman, married a cabman in 1842. She had successively three children, all of whom are living and in excellent health. No spot or blemish has ever been observed upon them. For some time she remained without becoming pregnant, but in December, 1850, her fourth child was born. This child, shortly after its birth, had red spots upon its face and neck, and an eruption upon its buttocks. The child also had a profuse secretion from the nose. It died of what was called bronchitis, at the age of seven weeks and some days. She again became pregnant in 1852, and gave birth to a fifth child, which, like the preceding child, appeared healthy at the time of its birth. In April 1852, this child was brought to me, and certainly presented one of the most wretched spectacles I ever beheld. The child had remained healthy until it was three months and a half old, when it got hooping-cough; a month afterwards it was brought to the hospital. Its eyes and mouth were surrounded by deep rings of coagulated blood, and its ears and nostrils were plugged with coagula; blood had also been lost by the bowels. All these orifices, mouth, nares, ears, eyes, and anus, had bled.

some days every time the child had had a fit of coughing. It was scarcely living when I saw it; the pulse was almost imperceptible; the face and surface of the body were blanched from loss of blood; it appeared insensible. I ordered the child to be put in a milk bath, and to have broth enemata, but I heard that convulsions came on shortly afterwards, and soon ended in death. In signing the certificate of this child's death, I returned it as dying of convulsions consequent upon hooping cough, and loss of blood. I had then no suspicion whatever of syphilis, as nothing was said of the death of the former child.

In the month of March, 1853, the same woman brought me a child, born in December, 1852, about whose condition there could be no mistake. Its buttocks were covered by large erythematous patches in a state of ulceration; the scrotum looked as if it had been covered with yellow varnish; the mouth and nostrils were fissured; the eyelids gummy; and the mucous membrane of both eye and nose secreting a profuse gummy matter; the inside of the lips and the surface of the tongue were aphthous; the cheeks were varnished and wrinkled. This condition of the child had come on gradually about a month previously; before this it had appeared healthy. The mother herself had never had any eruption, sore-throat, catamenial irregularities, leucorrhœa, or any symptom which, on the most minute inquiry, gave evidence of the presence of the syphilitic poison. During the whole of her married life she had not been conscious of any change in her health. I saw the husband of this woman, and he admitted that five years ago he had an outbreak of secondary syphilis, the primary disease having occurred four or five years before. He then became an out-patient at the Lock Hospital, and was mercurialized. During the presence of the secondary disease he avoided intercourse with his wife, and was confident that he did not communicate the disease to her. He had severe sore-throat, and a copper-coloured eruption. When I saw him the only signs of disease were a few acne upon his forehead, and he declared that nothing more than this had appeared upon him for the last two or three years. The wife has, at the present time, a mammary abscess, but she has had abscesses while suckling the last four of her children.

In this case, if the statement of the man can be relied upon, the syphilitic poison remained in abeyance during the first five years of his marriage, and the children born during this were not affected. After this, two children were destroyed, and a third poisoned, with syphilis. This woman, it will be

observed, never aborted. Can the mammary abscesses in this woman be referred to syphilis? It certainly appears as though the poison in this case affected the children without influencing the constitution of the mother.

CASE 2.—A woman applied during the course of last year at St. Mary's Hospital, with a nurse-child which she was suckling, and she also suckled at the same time a child of her own. The nurse-child was four months old. The skin of its face was like yellow tissue paper; its nostrils and eyes were secreting an abundance of gummy mucus and pus, and the nates and scrotum were covered with erythematous patches in a state of ulceration. Numerous blotches appeared on other parts of the body. The mouth and anus were deeply fissured, and the child's mouth bled every time it took the breast. The woman applied both children to either breast without reservation. When I first saw the diseased child, she had suckled it about a month. The woman herself, and her own child, were at this time free from any obvious signs of disease. The nipples were healthy, although the discharges from the nurse-child's mouth were so acrid, that on the spots where it sucked its own fingers erythema and ulceration ensued. The nature of the case being evident, the woman was cautioned not to apply her own child to the same breast with the nurse-child, and the case was narrowly watched, during treatment, for upwards of three months. In answer to the first inquiries on the subject, it was stated that the father of the diseased child had last year been an out-patient at the hospital, under the care of Mr. Spencer Smith; and on referring to the hospital registration books, I found he had been treated for an eruption of the leg, which was set down as "probably syphilitic."

The man himself, on being examined, gave me the following account of himself:—He had contracted syphilis in 1849; a chancre appeared on the foreskin, and remained there three weeks. It was followed by an inguinal bubo. For these symptoms mercury was given him, but he was not salivated. He, however, became apparently well under its use. Last year he got his fellow-servant with child, and married her when she was large in the family-way. The child—the diseased nurse-child already referred to—was born in January, 1853. From the time of the chancre up to the time immediately previous to that at which his wife fell pregnant, he had observed no signs of any secondary affection. But just before this he had lost his situation, that of a butler, and, faring worse than usual, he became out of health. His hair now fell off; he had no sore-throat, but the eruption appeared on

his legs, for which he was treated by my colleague, Mr. Henry Smith, and he had a scaly, copper-coloured eruption on his forehead, which became very distinct after eating and drinking. He also suffered at intervals from severe rheumatic pains.

The wife remained in apparently good health. She was confined, I believe, in Queen Charlotte's Lying-in Hospital, and was subsequently recommended by Dr. M. Babington as wet-nurse to a lady living in the country. The husband is in constant communication with his wife, and states that she has given satisfaction as a nurse, and is in perfect health, with the exception that she menstruates somewhat profusely, and oftener than natural. It has not been hidden from the lady whose child the woman is suckling that the nurse's own child had fallen into bad health.

It became, of course, a very interesting question to determine, as far as possible, whether the diseased child would communicate secondary syphilis to its foster-nurse, and whether the foster nurse would communicate the disease to her own child or husband, and also to ascertain whether the mother of the diseased child could communicate constitutional syphilis to her foster-child. Here was a case in which secondary syphilis might have at once been communicated to at least four persons, besides the parents of the diseased child and the child itself, if we recognize the transmission of constitutional syphilis through the medium of the secretions. In all, six persons were exposed to the danger of syphilis by the intercourse of the father of the diseased child with his fellow-servant. As far as this case goes to the present time, and I have now had it under my observation nearly four months, it tells against the communication of secondary syphilis from one person to another, either by means of the matter from secondary sores, or the secretions of a person suffering from secondary syphilis.

Some time after the child had been under treatment, its foster-nurse had two or three pimples upon her neck, between the breasts; but she stated she had had the same kind of pimples before she began to nurse the foster-child. When she began to confine the diseased child to one nipple, that nipple became sore, and a large serpentine ulcer formed upon. The ulceration had not, however, the yellow base or other appearances of a syphilitic sore, and three times I performed inoculation with matter taken from this sore, without any effect. The woman has had no signs of secondary disease in any other part of the body, and is as well as a woman could be expected to be who was suckling two children. Her own

child is perfectly free from all signs of disease, and so is her husband, at the present time. I have purposely limited the treatment to the diseased child itself, so that I might observe the condition of the nurse.

The state of the mother of the diseased child is perhaps suspicious, as menorrhagic losses are among the most common signs of secondary syphilis in the female; but still it is extremely frequent in wet-nurses who menstruate during lactation. I have seen Dr. Babington, and cannot learn that the child shows any signs of disease. It is fat and healthy, and although the suspicions of the mother have been excited, she appears perfectly satisfied with the health of the nurse. Thus, as far as this case goes, the syphilized father begot a diseased child. The mother suffered slightly, if at all—probably not at all—and has not communicated disease to her foster-child. The syphilized child has not communicated disease to its foster-mother and father, or to its foster-brother, though it would be difficult to conceive a mouth in a more aggravated state of disease than was the mouth of this child when I first saw it. The eruption and other signs of disease were relieved by grey powder, a mercurial girdle, the iodide of potassium, and cod-liver oil.

These cases show the amount of disease which may follow marriages in which the husband has had syphilis previously, and in which even slight signs of the disease remains in his constitution.

I have also arrived at the conclusion, that where the placenta and membranes become so diseased as to cause abortion, the child remaining free from disease, the mother is pretty sure to be affected with the disease; but when the child is born living, and is apparently healthy at the time of birth, the mother may in some cases escape contagion. When the children are born healthy, the eruption generally comes on a few weeks after birth, and is probably excited by the alternations of temperature, and the irregularities of nutrition to which the infant is exposed after birth, as compared with that of the fœtus in utero. Probably in some infants born of healthy mothers and syphilized fathers, the eruption may not appear until long after birth: at least, I have seen cases which seemed to warrant such a conclusion. When the ovum is affected by secondary syphilitic disease, we can easily understand that the blood of the fœtus should infect the mother through the placenta. By pregnancy, through the medium of the blood of the ovum, the blood of the male parent is, as it were, positively transfused into the blood of the female. There can be no doubt I think, that in practice, in all cases of repeated

abortion, and eruptions in the early months of infancy, the health of the male parent before marriage should be strictly inquired into.

With respect to the contagiousness of secondary sores, it appears to me to be at present an undecided question, but I have not seen a case in which it could have been pronounced with certainty that a secondary malady was communicated from one person to another by intercourse without the presence of primary sores. I might have added many other cases but those I have related are two of the most interesting which have come under my own observation, and in which I was able personally to verify most of the facts relating to them. Not the least important of the results, as I have observed them, is the frequency of leucorrhœa as a leading symptom of secondary disease when communicated to the mother by the ovum.—*London Lancet*.

4.—*Treatment of Rheumatism*; with statistical results of twenty-five cases treated in the New York Hospital. By JOHN B. CHAPIN, M. D., Resident Physician.

The treatment of rheumatism has of late years excited especial interest on account of the unsatisfactory results of the different modes heretofore pursued, and the dangerous complications attending the disease. It has been found that its duration has not been materially affected by the means used for its relief; and it has been a question with some whether or not complications of the disease have not been promoted by the treatment pursued.

Dr. Fuller, in his recent work upon rheumatism, regards the pathology of the disease as depending upon the presence of a "*materies morbi*," which he supposes to be an excess of lactic acid, owing to defective assimilation, or suppressed perspiration. With the view to the neutralization and elimination of this acid, he recommends the free use of alkalies, by which means he "hopes the average duration of an attack may be reduced, from a month or six weeks, to ten days or a fortnight." Statistical tables must, in the present state of our knowledge, be relied upon to determine this result. During the attendance of Dr. Swett at the New York Hospital, the present year, all the patients admitted with acute articular rheumatism were put upon the "alkaline treatment." The salt chosen for administration was the tartrate of soda and potassa, a neutral salt, possessing the property of rendering the urine alkaline.

The plan of treatment usually pursued was,—if the patient

presented himself with unusual excitement of the skin and pulse, to administer a mixture of sulphate of magnesia and tartarized antimony until the skin was relaxed, and the pulse reduced to a more natural standard. The Rochelle salt was then directed in drachm doses, every two or three hours during the day time, till the urine was rendered alkaline, when it was gradually suspended. A lotion of carb. potass. ʒj. with opium ʒij. to the pint of water, was directed as an external application. The administration of the salt was not attended with disagreeable consequences, with the exception occasionally of some ulceration about the fauces,—in no case was its action so severe upon the bowels as to require its entire suspension. The persons attacked were in the full vigor of health, and the character of the disease acute in its form. The frequency of administration of the remedy was governed very much by the re-action of the urine.

On the admission of the patient, the urine was tested, and, in all cases, was found to be of acid reaction, and the secretion of the skin presented the usual acid odor. The treatment was generally commenced the second or third day after admission, and the urine was rendered of decided alkaline reaction in an average of five days after its commencement; the longest period it resisted the alkaline reaction having been twenty days, and the shortest two. The secretions of the skin have not, I believe, been noticed to alter. In one case, attended with profuse perspiration, which yielded readily to treatment, the colored shirt the patient wore entirely lost its color; and it was suggested whether the same change did not take place in the perspiration as in the urine. The average amount of the salt administered was from five to seven ounces.

The average date of commencing improvement was seven days after commencement of treatment, coinciding, in the large majority of the cases, with the commencing alkalinity of the urine. The improvement was invariably permanent, and after the urine was rendered alkaline, *no new articulations were effected*, as a general rule.

The average period of convalescence was twelve days after admission, and the whole duration of the disease, including the period previous to admission, was twenty-two days. Of thirty cases treated by Dr. Swett, during April and May 1853, during which time no uniform course of treatment was pursued, the average duration was five and a half weeks. One of the most gratifying results of the alkaline treatment was the diminished frequency of cardiac complications. Twenty-one of the twenty-five were free from any complication, three were *admitted* with aortic obstruction, and one with mitral re-

gurgitation. Not one patient was attacked with any heart complication during the treatment of the disease. Comparing this result with the practice last year, it was found that four had mitral regurgitation, six aortic complication, and three suffered from pericarditis; thirteen in all, out of thirty.

In the present article, it was not intended to touch upon the relative merits of the variety of plans of treatment that have been suggested for this disease, but to present the *results* of the plan suggested by Dr. Fuller, as practiced in this Hospital, which, it is believed, go far to sustain the confident predictions he has made of his favorite treatment.—*New York Medical Times*.

5.—*Remarks on Syphilis*. By A. R. NYE, M. D., Late Assistant Resident Surgeon, Charity Hospital, New Orleans.

That many valuable remedies have fallen into disuse, from an indiscriminate administration or misapplication, is well known to every medical practitioner. The tendency of medicine, like every other science which is founded upon observation, and which has no fixed basis, is to run to extremes. This often occurs in the medical profession from the ardor of those peculiar minds that adopt the one ideal system, and select a specific for all diseases. Having selected their weapons from the medical arsenal, they go forth to battle against disease, always dealing their blows exactly in the same way, regardless of the position or defence of their adversary.

That this has been and is still emphatically true with regard to the treatment of syphilis, no one can doubt who has been at all conversant with the disease. From the time of Hunter to the present hour, mercury has been regarded as a specific for this disease in all its varied forms. By one class of practitioners it has been given indiscriminately, without regard to time or temperament. Acting on the principle that if a little is good—more would be better—patients have been drugged with this mineral, until “the last state of that man was worse than the first.”

Another class, going to the other extreme, have wholly eschewed mercury and banished it from the list of remedies employed in syphilis. They have even gone so far as to ascribe all the constitutional effects of syphilis to mercury. Quackery, profiting by the ultra-mercurialism of one and the sweeping assertion of the other, has fattened at the expense of suffering humanity, by advertising to cure *all* cases of syphilis without the use of mercury. That they do this, or rather that primary syphilis is seldom followed by constitutional symp-

toms, whatever system of medication is adopted, is true. They, therefore, gain credit for a preventive treatment which is entirely unnecessary, and, if unnecessary, actually hurtful.

"Truth lies between extremes;" and no one should be considered a trimmer who adopts a medium course in this matter. In this article it is not expected that any new light will be thrown on the pathology of syphilis; but if any thing is done by it to reconcile the conflicting statements of authors, or to simplify the varied treatment of this disease, the object of the article will be more than accomplished. My aim has been to test the treatment of received authorities, and then adopt the one found most successful.

The following observations (if they deserve the name) are founded on a series of experiments made in the Female Venereal Ward of the Charity Hospital. The method of treatment adopted was original in only a few instances. To be able to judge of the comparative merits of treatment and remedies, I have selected patients of a similar constitution and similarly affected, and placed them upon different courses of treatment. From these observations it is not expected that any precise course for the treatment of syphilis can be indicated, for this must vary with time and temperament—but merely a general course, which will apply to a majority of patients. That these observations are subject to many sources of fallacy, no one can doubt—but I submit them to the profession for what they are worth.

If pus be taken from a chancre during the progressive stage and inoculated, it will produce another chancre. But if the matter be previously dipped in either diluted alcohol, alkalies or acids, or solutions of sulphate of zinc or copper, its inoculable power is destroyed. These are, therefore, prophylactics, and if properly applied, early, before the matter has gained a foothold, will destroy the virus. But a virus being once established in its favorite seats—they are totally inefficient.

The characteristic of primary syphilis is chancre. Chancres are most conveniently divided into simple, phagedænic, sloughing and indurated. *Primarily all chancres are simple; but they assume different forms, after a few days, according to the habits and constitution of the patient.* The inflammatory chancre of some authors is a form of simple chancre in young and plethoric subjects, who live high. The phagedænic and sloughing generally occur in anæmic, irritable or dissipated subjects, or in those of a syphilitic diathesis. The indurated is the form which the simple chancre assumes when the disease has become constitutional.

The primary object in the treatment of chancre is to destroy the virus as early as possible, and thus prevent constitutional infection. This is accomplished by caustics—a variety of which are recommended. The application which I have found most efficacious, is a concentrated solution of nitrate of silver. A solution is to be preferred to the solid caustic, because the liquid penetrates to every part, while the solid often barely smears over the surface of the ulcer, and leaves some point of infection beneath. Mr. Graves says the solid caustic is more likely to give rise to bubo—if this be so, it probably follows because the virus is imperfectly destroyed by the solid, and absorption takes place. Previous to the application of the caustic the parts should be thoroughly cleansed and dried—otherwise some of the virus may exist on the neighboring skin, and if not removed will re-inoculate the sore, when the eschar, formed by the caustic, comes away. Immediately after its use, dry scraped lint should be applied to absorb any excess of fluid or exudation of matter.

Nitrate of silver is preferable to any other caustic, for it is milder and often sedative in its operation, and when the eschar formed by its application comes away, we often find the sore perfectly healed, while other caustics produce inflammation and pain, and coming away by a deep slough, leave an ulcer to be healed by granulation—and the former is equally efficacious when properly applied. If the proper degree of care and cleanliness have been observed, a re-application of the caustic will seldom be required. Cleanliness, with dry lint, changed daily, will generally suffice to effect a perfect cure. Some surgeons cauterize daily until the sore is healed. But I have noticed that the cicatrices of ulcers healed in this manner, are hard and contracted, and, therefore, liable to laceration. Acute inflammation is generally supposed to contra-indicate the use of nitrate of silver—but if it be applied to the *whole* inflamed surface, it will not only diminish the inflammation, but will allay the pain. For which reason patients will often request a re-application.

The local treatment of phagedænic and sloughing chancres is of course modified by circumstances. A wash, composed of one or two drachms of nitric acid, to six ounces of saturated aqueous solution of opium, will act favorably in a majority of cases.

The treatment of the indurated is much the same as that of the simple chancre, except that care must be observed in the application of the caustic, or the sore will become irritable and gangrenous. Black, yellow and astringent washes do well in these cases.

Our attention has hitherto been confined to the local, to the exclusion of constitutional treatment. Nor is such treatment necessary, except in cases of indurated chancre. But unfortunately, this is by no means the universal opinion—for I have repeatedly seen patients enter the Charity Hospital, who had been profusely salivated for the slightest primary accidents.

Our best authors say, that if the abortive treatment be applied to simple chancres before the third, or even the fifth day of their existence, constitutional infection will be prevented. But it is evident that no definite period can be fixed as a limit to infection. This depends entirely upon the constitution of the patient—the absorbents being much more active in one person and at one time than another. A much surer and safer indication is the state of the chancre and its consequences. If there exists no induration of the base of the chancre, no enlargement of the inguinal glands, or if there be specific suppuration of these glands, there is no danger of constitutional disease.

As a case in point, M. J., 18 years of age, entered the Female Venereal Ward of the Charity Hospital, in the spring of 1851. She was robust and perfectly healthy, with the exception of four simple chancres, in the vicinity of the labia minora. It may be well to mention in passing, that in a great number of cases which I have examined with the speculum, I found only one chancre near the uterus. They have always been about the entrance of the vagina. This patient had discovered these chancres nine days previous to her entrance into the Hospital, but had done nothing for them. Inoculation produced a specific sore. The chancres were treated with a solution of nitrate of silver, and healed kindly in four or five days. She then left the Hospital. She returned again in the spring of 1853, with simple chancres. The same treatment was again applied, with a similar result. In the meantime, from the spring of '51 to that of '53 she had been perfectly free from any signs of constitutional syphilis. Does not this plainly show that chancres may exist for an indefinite period, without infecting the system? She had chancres for nine days (and probably for a day or two before she discovered them) and although no constitutional treatment was adopted, yet she escaped infection.

If M. Ricord's assertion is true, that "when no specific treatment has been adopted—when the disease has been left to itself, six months never elapse without the manifestation of symptoms of the syphilitic intoxication." She should have presented those manifestations. Numerous other cases of a

similar import might be adduced, but one will serve to illustrate our position. Had this patient been placed upon constitutional treatment, would it not have been worse than useless? M. Ricord and Mr. Wilson both say, that when the poison of syphilis is once absorbed, it is never eradicated from the system, but that a diathesis is established. M. Ricord also says, that constitutional treatment immediately after chancre, does not *prevent* the manifestation of constitutional disease, but barely *delays* it. Then, in a case of chancre, presenting none of the signs of infection, no treatment is necessary; and even doubtful cases should be left to time—for if absorption of the virus have taken place, it will be manifested in six months, and we can then adopt a specific treatment; while, if we commence at the outset, and attack an equivocal disease, we only delay its appearance should there really be infection; and if there be none, we subject the patient to useless inconvenience; or, worse still, we may actually produce disease by our system of medication, especially if mercury be used without care or judgment.

Phagedænic and sloughing chancres are never followed by constitutional symptoms. Therefore no specific treatment is necessary; we have only to treat the patient according to indications. A tonic course, especially of the mineral tonics, with occasional full doses of opium will succeed in a majority of cases, in renovating the system and removing that irritability peculiar to such patients.

Leaving the primary form of this disease, we now come to its graver aspect, when the virus has invaded the system and penetrated to every portion of the animal economy. This is indicated in a great variety of ways, and the disease assumes a multiplicity of forms, according to the time, temperament and treatment of the patient. It is indicated primarily by indurated chancre and enlargement of the inguinal glands, followed, sooner or later, by affections of the skin or mucous membranes, and by ganglionic enlargements, particularly of the posterior cervical ganglia. All which accidents are considered secondary; whereas, affections of the cellular, fibrous, serous, periosteal and bony tissues, constitute tertiary syphilis.

There are very few cases of secondary syphilis in which mercury may not be used with signal success. The exceptional cases are mostly anæmic, debilitated and scrofulous subjects. But it is by no means intended that mercury should be indiscriminately used. Much care and discrimination are necessary in suiting it to each particular case. While some patients may, with benefit, take one grain of calomel, or pro-

tiodide of mercury three times daily; others cannot go beyond one-fourth or even one-sixteenth of a grain. Let us not forget in our impatience to effect a cure, that we are dealing with a chronic and not an acute disease. Here we have a poison circulating or seated in the system which we wish to remove. How are all poisons eliminated from the system? By the secretions. Therefore, to eliminate a poison like that of syphilis, we stimulate the secretions; and this is most effectually done by mercury. But mercury in excess, after a time, will not only check secretion, but it will go farther—it will give rise to inflammation. Thus, instead of removing, it may actually engender disease. We cannot, therefore, be too careful of its administration or too vigilant in watching its effects. It is rarely necessary to push it to salivation—only the slightest evidence of its effects are required. The mercurial course should be followed by a course of the iodide of potassium, which acts much better and more speedily after mercury. The antecedent course of mercury, seems to induce a state of the system highly favorable to its action. The mercurial generally preferred is the protiodide—for it is slower in its action, and therefore not so liable to produce salivation or other disturbances of the system. But where the evidences of the syphilitic intoxication are acute, in Iritis—it is too slow in its action, and calomel should be substituted for it.

Of the treatment of the syphilitic skin diseases, very little can be said—for this class of diseases is not common in this region. There is something in a tropical climate unfavorable to their development. Those forms of eruption which I have witnessed, viz., lepra, lichen, lupia, tubercles and psoriasis, were benefitted by a course of mercury and iodide of potassium combined; I have had two cases of psoriasis palmaris, and one of lupus in private practice. The cases of psoriasis were treated with the biniodide of mercury internally, and the citrine ointment locally, with very favorable results. The case of lupus was treated with Donovan's solution, and the biniodide of mercury ointment, and recovered. These three cases were very clearly traceable to syphilitic infection. Donovan's solution is extensively used, in various forms of skin disease, with very happy results. Is not this, probably, entirely owing to the mercury held in solution? And does it not tend to prove the position of Mr. Wilson, that nearly all skin diseases are dependent upon the poison of syphilis?

In the British and Foreign Medico-Chirurgical Review, for July, 1851, will be found an article by Dr. Williams, recommending iodide of potassium in preference to mercury, in a majority of secondary accidents. But the weight of authori-

ty is against him. Probably, a perfect cure cannot be relied on by this agent alone. I have seen several instances of various secondary accidents, as affections of the skin, ulcerations of the throat, etc., with enlargement of the posterior cervical and cervico-cephalic glands, which were very much *benefitted* by the use of this remedy; but I have never seen a permanent cure from it. In several instances the affections of the skin and throat disappeared, but the enlargement of the above-mentioned glands remained; and thus happened, notwithstanding ounces of the iodide had been taken for weeks and months together. On the other hand, small doses of mercury have never failed to remove the enlargements of these ganglia, in a few days. No doubt the engorgement of these ganglia alone (to which M. Ricord has called attention) are valuable pathognomic signs of constitutional syphilis; and a patient should never be considered safe while this state of the gland continues.

We now come to that form of syphilis (the tertiary) in which the iodide of potassium is more extensively used, and with more satisfactory results. But even here there are very few cases in which mercury cannot be judiciously administered, either before or in conjunction with the iodide alone. But here mercury must be given with much more care, and in smaller doses than in secondary syphilis; for we have to deal with a more chronic form of the disease. Occasionally we meet with a patient, who is so much debilitated, or on whom the disease has made such sad havoc, that this course would be ruinous. For such we can do more by a tonic treatment.

Perhaps the foregoing article might have been rendered more interesting by a fuller interspersion of cases, or by merely a report of cases. It may be interesting to the medical historian to know the train of reasoning and experiment by which we arrive at certain conclusions; but to the medical practitioner, it is much more interesting to know the conclusions themselves. Therefore, we have preferred to give results instead of cases.—[*New Orleans Medical and Surgical Journal*.

6.—*European Correspondence*. By AUSTIN FLINT, M. D., Professor of the Theory and Practice of Medicine in the University of Louisville.

PARIS, MAY 18, 1854.

Dear Doctor :—Of the numerous hospitals of Paris, two are devoted exclusively to cases of *venercal* disease. One is appropriated to male and the other to female patients. The

former is called the *Hôpital de Midi*. The buildings were formerly occupied as a monastery. In 1784 it was converted into a hospital for nurses and new-born infants affected with syphilis. Shortly afterward it became a general syphilitic hospital for persons of both sexes, but subsequently it was reserved for males alone. This hospital contains 336 free beds. It receives, besides, a small number of pay patients. Male attendants are alone employed in this institution. The average number of patients is 3,300.* A physician and two surgeons form the medical staff of the hospital. The physician is Dr. Puche; the surgeons are M. M. Vidal de Cassis and Ricord.

M. Ricord has a world wide reputation as the author of several treatises on syphilitic affections, which have materially altered, in many respects, the pathological views and the practice of the profession of all countries, in this class of diseases. No writer, indeed, for the last ten years, has been so prominently identified as he, with the literature of this subject. He is emphatically the authority on all points pertaining to it—how justly I am not prepared to say. As a practitioner in this speciality he holds a corresponding position. During his consultation hours his *salons* are crowded with patients of all ages, conditions, and of either sex, who receive from the servant at the door cards numbered in the order of their application, and they are admitted in the same order. It is said that his practice is more lucrative than that of any other practitioner in the city.

The wards of M. Ricord at the *Hôpital de Midi* contain a hundred or more patients, presenting every variety and stage of syphilitic disease. As a field of study for one desirous of devoting attention to this department, it is all that could be desired. Here may be observed, at once, groups of cases which in a general hospital, and still more in private practice, would not fall under observation for months or even years. It is in this point of view that Paris offers for clinical studies great advantages. By means of its special hospitals numerous illustrations of the disease, pathological conditions pertaining to any particular class of affections, are simultaneously placed before the observer. By this, not only may much be accomplished in comparatively a short space of time, but the advantages of comparison and contrast contribute to accuracy of observation. The difference is like that between prosecuting the study of mineralogy, on the one hand, by collecting specimens as they chance to fall in one's way, examining

* For these and other statistics, I am indebted to that indispensable companion of the stranger in Paris, Galignani's Guide, edition for 1854.

them and then throwing them aside; and on the other hand, by resorting to a large and well arranged cabinet.

M. Ricord must be at least fifty years of age; but with an abundance of black hair, a full face free from wrinkles, a brisk gait, and a vivacity of manner amounting almost to boyish friskiness, he appears much younger. Mirthfulness must be a prominent trait in his mental constitution. He passes from bed to bed, greeting his patients always with a smile, often with a jest, and sometimes patting them playfully on the cheek. In these demonstrations of familiarity he compromises somewhat that dignity of demeanor, which is usually preserved by the hospital physicians and surgeons here, without any approach to stiffness or affected pomposity of manner.

After visiting the wards, M. Ricord examines and prescribes for out-patients, who usually apply in great numbers.

The female syphilitic hospital is called the *Hôpital Lourcine*. It contains three hundred beds, of which two hundred and fifty are for adults and fifty for children. The average number of patients yearly is two thousand. Students and medical practitioners are not admitted to the wards of this hospital without special permission. The medical stranger, however, has no difficulty in obtaining a permit, on application at the *bureau central d'admission*. M. Gosselin, one of the surgeons, had sent me a ticket through a mutual friend, which, however, inadvertently, I did not carry to the hospital. The *concierge* had no authority to admit me on my own statement of this fact, but he attended me to the ward in which M. Gosselin was just commencing his tour of service, and on introducing myself, I was invited to accompany him. I am not aware that such restrictions exist at any other hospital with the single exception of the *Hôpital de la Maternité*.

M. Gosselin appears to be about forty-five years of age. He is somewhat below the medium stature, rather stout, has a florid complexion, and bright black eyes slightly affected with strabismus. He is one of the very few among the hospital surgeons and physicians who do not appear to be in haste to complete their morning duties. His patients, numbering about one hundred, were in two large, well ventilated and very neat wards. One of these wards was assigned to those not requiring examinations with the speculum, cases of constitutional syphilis; the other to cases in which these examinations are required. Connected with the latter ward is a small apartment provided with a speculum table, placed before a window, and here he examined the patients admitted one by one. About thirty patients were examined in this apartment, presenting chancres, vaginitis, vaginal abscesses,

buboes, mucous tubercles, ulceration of the neck of the uterus, and intra-uterine inflammation. In one case there existed great enlargement at the labia, and an immense number of vegetations within the labia and around the anus; in several instances he introduced the stick of the nitrate of silver within the uterus. He used the bivalve speculum exclusively, applying in the different cases instruments differing in size. The examination of each patient was attentively made, the vagina, and frequently the rectum, being explored with care. As each patient was admitted, an *interne* read the record of the case made at the last examination. During the examination, M. Gosselin dictated the present record. All this was done deliberately and with careful regard to accuracy. I have not elsewhere met with the same attention to clinical records. M. G. is making a collection of facts probably with reference to a future work. The explanation of this degree of industry which, so far as I am able to observe, is unusual at the Parisian hospitals, is perhaps to be found in the fact that M. G. has not yet reached the highest position to which a Parisian surgeon may aspire; and in Paris this position is the reward of talent and labor.

After concluding his examinations of the ward patients, he attended to new cases. In these cases ocular examinations were invariably made. Some were admitted into the hospital, and others were placed on the list of out-patients.

Among the inmates of the *Hôpital Lourcine* I observed females of different ages, some appearing as old as fifty, or even more, but much the larger proportion were young. It was painful to see ascend the table for an examination with the speculum a girl so youthful in appearance that M. Gosselin was led to inquire her age. Her reply was, fifteen years! Many of the patients presented an exterior so respectable that their character would not have been suspected. Others evinced their vocation in their countenances and demeanor. The utmost order and propriety, however, are maintained in the wards; and here, as at most of the hospitals, the nurses are sisters of charity. A card attached to each bed contained among other items, the occupation of the patient. I noticed under this head *domestique*, *lingère*, *couturière*, but in several instances, this space was blank. Probably in the latter cases the persons had deliberately adopted an abandoned life as a profession.

You are, of course, aware that prostitution is practiced in Paris under the sanction of a legal license. A public woman is obliged to inscribe her name in an official register and is kept under the surveillance of the police. She becomes what

is technically called *une fille inscrite*. She is compelled to submit to medical examinations, from time to time, and if found diseased she is sent at once to the hospital *Lourcine*, whence she is not discharged except on the certificate of a medical officer of the institution. The subject of legalized prostitution involves important moral considerations which I do not design to discuss. With us the law recognizes the evil only to enact penalties which do not prevent it, if, indeed, they tend to diminish it. In France the evil is recognized as one that cannot be prevented by law, and hence that it falls within the scope of legal enactment to mitigate some of its terrible results. It may be doubted whether the system pursued in France and some other countries of Europe operates in any measure as a bounty, for the increase of prostitution. The influence is perhaps the reverse. But as regards the physical consequences to both sexes, it is unquestionably true that the regulations so rigidly enforced at Paris tend to mitigate and diminish them in no small degree.

This subject is one of interest and importance to the moralist, and the political economist, as well as to the medical philosopher. It is one of those subjects pertaining to health and happiness which, from a false delicacy, it has been tacitly understood to be either improper or useless to discuss. A late British writer, however, has disregarded this sentiment, and commenced a series of articles in the *British and Foreign Medico Chirurgical Review*,* which will be likely to call attention to the subject in the United States, as well as in Great Britain. A work published in Paris more than ten years since by A. I. B. Parent Duchatelet contains much statistical information respecting the class of abandoned females in Paris. A translation of this work has been, I believe, issued in the United States.

Of each of the thirty-five hospitals and *hospices* of Paris, a majority of which I have already visited, you will hardly expect from me an account. They are all conducted essentially on a similar plan, so that, as respects the general arrangement and management, one may be considered to be a type of the whole. Curiosity, of course, leads the medical visitor in Paris to see most of them; but it is the distinguished members of the profession, more or less of whom are connected with all of them, which render them severally of interest to the stranger. At *La Charité*, for example, at the present time, on a morning's visit one will find Velpeau, Cruveilhier,

* Dr. S. S. Holland. No. of the Review for Jan. I have not seen the subsequent Nos. of the Journal, which probably contain the continuation of the article.

Rayer, Piorry, Andral, Bouillaud, and Briquet examining patients from eight in the morning till ten, each in his respective wards. Here is a list of names which have been conspicuous in medical Literature for the last quarter of a century. Clinical lectures are given three times a week by Velpeau and Piorry, and clinical *conferences* at the bedside, by the latter, with his private class, daily. The hospital *Beaujon* possesses interest from the fact that here one may follow Barth, distinguished as a morbid anatomist and stethoscopist. At the hospital *St. Antoine*, the clinical conferences of M. Aran, a rising member of the profession, will repay the trouble of a morning excursion. At the children's hospital Guersant visits daily, giving clinical lectures and operating twice weekly. On the day of my visit he operated for stone in the bladder, on a boy about ten years old. He performed the bilateral operation, and chloroform was administered freely by means of an inhaler. At *La Pitié*, Valleix, author of an admirable work on internal pathology, or the practice of medicine, is one of the physicians now on duty. At the *Hôpital des Cliniques de la Faculté de Médecine*, may be found daily Nelaton, the eminent surgical author, one of the most popular of the surgical teachers in Paris, and Paul Dubois not less eminent in the department of midwifery. Clinical lectures are given by both on alternate days. At the *Hôpital Saint Louis*, Cazenave, Devergie and Hardy are on service in the medical wards, and clinical courses by all are in progress, consisting of one lecture by each weekly, given on different days. At the same institution Malgaigne and Denonvilliers are the surgeons visiting daily and giving stated clinical lectures. So at other institutions attractions are derived from the medical officers more or less distinguished, who are connected with them, and who make it an object to render the wards under their control useful to others in the way of medical observation and instruction.

Some of the hospitals, however, in addition to those of which I have given some account, claim special notice. The *Hôpital des Cliniques*, mentioned above, is one of these. This hospital is appropriated to surgical diseases, and cases of midwifery. About one thousand accouchements take place at this hospital during the year. Students of medicine are admitted in sections to practice examinations by the touch, etc., during pregnancy, and to witness the process of parturition. The accoucheur, Paul Dubois, is one of the most prepossessing of the hospital teachers of Paris in his personal appearance, and in his bearing toward his patients, and towards the class who follow him. His clinical lectures are delivered in

an easy and agreeable style, relieving the attention of his auditors occasionally with a little quiet humor. Nelaton's clinical lectures always draw a full amphitheatre.

The *Hôpital Salpêtrière* or *hospice de la vieillesse* possesses great interest, not alone for the medical observer, but for any one not indifferent to the subject of philanthropic institutions. It is appropriated to aged or infirm indigent females, female lunatics and epileptics. This huge establishment contains between five and six thousand inmates. It forms a large community in itself, covering, at a rough estimation, from thirty to fifty acres, pleasantly situated at a short distance from the *Jardin des Plantes*. With this great number of inmates there is no over-crowding. The buildings are ample, containing numerous large, well ventilated rooms which are perfectly neat. The large courts are beautifully arranged with gravel walks running in various directions, groves and shrubbery, so that the aged and feeble inmates may live, as the Parisians of both sexes delight to live, in fine weather, viz., in the open air. It is a truly interesting sight, the groups of paupers seated under the trees, or under a large tent erected to shield them from the sun, with their knitting or sewing, all presenting a tidy appearance and apparently perfectly contented. Such a spectacle redeems Paris from not a little of the much which shocks the moral sense. An examination of the internal arrangements of this institution, the cuisine, the laundry, the pharmaceutic departments, etc., leads one to admire the systematic order and precision, extending to the minutest details, with which the public institutions of this city are conducted. I should not omit to add that connected with the establishment is a large church, ornamented with statuary and valuable paintings, and open, as are all the churches of the Catholic church, at all times. The visitor will here always find numbers of the inmates of the *hospice* engaged in their devotions.

At the present time a highly interesting course of lectures on mental pathology is in progress by M. Baillarger, one of the physicians of the institution. His lectures are delivered on Sunday morning, and among his auditors are many of the *savans* of Paris, in addition to a large class of medical students and practitioners.

The *Hôpital St. Louis* is of incomparable value to one desirous of studying diseases of the skin. I have visited the wards of this institution twice weekly since my arrival in Paris, and shall continue to do so during the summer. I design to devote to it a future letter.

With the great number of hospitals in Paris, situated at remote distances from each other, with clinical lectures going

on in all simultaneously, and usually at the same period of the day, viz:—from 7½ A. M. to 10 A. M.; together with the numerous private courses of instruction, and didactic courses at the *Ecole de Medicine*, the *Ecole de Pratique*, the *Jardin des Plantes* and the *sorbonne*, it is entirely out of the question for the medical student to avail himself, at one time, of more than a fractional part of the opportunities constantly offered for prosecuting the medical and collateral sciences. He must select the branches which he desires to pursue, and also make choice of the teachers whose aid he will accept. If he desires to observe the medical, or surgical practice of hospitals, he must, after preliminary examination, elect two or three which he prefers. He must also content himself with a few of the public and private courses of lectures, consoling himself with the reflection that fresh courses on the same subjects are repeated at short intervals, so that he has in prospective those which he is obliged to defer. It is obvious that in order to turn to good account a sojourn in Paris of a few months it is highly important to have certain objects in view, that is, to know what branches one desires to pursue. Without definite ideas on this point, the mind would be likely to be confused, and perhaps discouraged by the multiplicity of advantages. It is for this reason, among others, that one is in a better situation to profit by the facilities which are here presented for scientific studies after having been engaged in the practical duties of the medical profession long enough for one's taste or capacity to take its natural direction, and for a person to know what kind of knowledge he wishes to possess, and to be able to appreciate the opportunities which specially pertain to this city. There are other cogent reasons why it is a measure of very doubtful expediency for a young man to come to Paris to pursue his studies. The temptations to profitless amusements, and vice, are very great, and it must require more than an ordinary stability of character, wholly removed as one is from the restraints of social and domestic influences, to resist the allurements by which he is surrounded. Observation shows that in not a few instances a residence here becomes attractive not so much for its scientific advantages, as for the abundant resources for dissipation.

The hospitals of Paris, of themselves, furnish ample matter for a series of lectures; but they form but one class among the many objects which are interesting to the medical observer. There are the school of medicine, the museums, the libraries, the medical journals, the academies and scientific societies, the laws regulating medical education and the medical profession, &c., &c. If my leisure permits, and I can persuade

myself that what I may write will prove acceptable to yourself and your readers, you may expect a continued correspondence relating to some of these subjects.

In my first letter I alluded to the fine weather which continued without interruption during the first three weeks after my arrival. I had begun to think that even the elements had been made subservient to the gayety of *la belle France*, but I have since had occasion to know that a long "*spell*" of bad weather is possible even in Paris. For the past month it has been cold and rainy, with the exception of but a very few days, and on the 20th of May I was writing by a coal fire, which is indispensable to comfort.

Yours truly,

A. F.

—*Western Journal of Medicine and Surgery.*

7.—*Remedial Powers of Cod Liver Oil.*—We see from one of our exchanges, that "Prof. Wood remarked to the College of Physicians of Philadelphia that he had looked to the obituary tables accompanying, from year to year, the reports on meteorology and epidemics, with deep interest in reference to an important therapeutical question; the efficacy of the cod-liver oil in the treatment of pulmonary consumption. The oil has been almost universally employed in this disease; and, during the first years after its introduction, a most striking effect was observed—the number of deaths from consumption diminishing surprisingly. Now, there appeared to be no other cause to which this diminution in deaths could be attributed, excepting the use of cod-liver oil. Still, Dr. Wood had been fearful of attributing too much to the influence of this agent, inasmuch as it was known to have the effect of postponing the fatal event—of prolonging without eradicating the disease—and hence, might cause the mortality from consumption to be thrown into future years. Dr. Wood had looked with some solicitude to the report for the past year, for a solution of this question; and he was happy to find the augmentation in the deaths from consumption, in 1853, no greater than is indicated by the report. This speaks very favorably for the remedial powers of cod-liver oil. There was to be anticipated an increase in the mortality from consumption during the past year, as the postponed mortality of the disease in former years would be thrown upon this. Hence, from a decrease in the proportion of deaths from consumption, since the period when it used to be between a sixth or a seventh of the whole mortality, we have gained something from the use of the oil

in that disease; probably that we have cured by it one in every eight cases, with the anticipation of a still larger proportion hereafter.

8.—Dr. Sanford B. Hunt, in a very interesting article on the nature and phenomena of Hysteria, says :

“The student of nervous pathology must often recognize in the insanities of Swedenborgianism, Homœopathy, Spiritualism, and especially Electro-biology and Mesmerism, a train of mental *and of bodily* symptoms to some extent identical with those of hysteria. To trace these resemblances is our task. In the pursuit of them we may overstep the boundaries of medical literature, and search in the moral movements of the day, or in the field of secular literature for facts germane to our investigation.

“Among the symptoms to which I shall direct this attempt at explanation, and which every practitioner must occasionally have recognized, are—1, hysterical coma, or hypnotism; 2, somnambulism; 3, extreme credulity of statements unsupported by evidence or foregone experience; 4, ecstasy; and especially, 5, extraordinary monomania for the deception of those around them. The phenomena of these conditions are now sufficiently understood to render them applicable to our ideas of the necessities of treatment, and it is not too much to assume, that he who looks upon hysteria as a mere manifestation of derangement of the cerebro-spiral system, dependent on organic causes, is not entirely competent to its proper management.”—*N. W. Med. and Surg. Jour.*

9—*Modes of Exhibiting Cod-Liver Oil.*—Those who have had large experience of the use of cod-liver oil must have been astonished at the surprising way in which, in a great majority of cases requiring its exhibition, it agrees. It is not easy to mark out beforehand any class of symptoms which contra-indicate its employment, if the existence of strumous disease call for it. Often symptoms, apparently the most likely to be aggravated, are removed or mitigated by its use in a way which surprises both patient and prescriber. Thus, in phthisical cases, a red tongue, acid eructations, biliousness, heartburn, liability to sick headaches, aching pain between the scapulæ, an instinctive and intense dislike to fat or greasy aliment, are symptoms which, without a question, may often be remedied by the use of cod-liver oil. These statements are of course, applicable only to a certain proportion of cases;

there are others in which its use is clearly indicated, but in which the prescriber's ingenuity is taxed to the utmost to get the patient to bear the remedy. The following memoranda on this part of the subject, founded on our observations of the practice of the various London hospitals, but more especially of the City Hospital for Diseases of the Chest, may probably be acceptable to some of our readers.

Cases in which difficulty occurs may be divided into the following classes: 1. *Those in which the nauseous taste of the oil forms the obstacle.* In these, the use of the pale oil will generally obviate the difficulty; it is, however, four times the expense of the brown, and is more liable to be adulterated, which are great objections. The taste of the brown oil may often be concealed by taking it floating on some bitter menstruum. A wineglassful of strong coffee, of ginger wine, of infusion of quassia, or, perhaps, best of all, a quinia draught, containing a drachm of the tincture of orange-peel, may serve this purpose. The oil may be stirred up in a little hot milk, and swallowed so warm that the sensation of heat overpowers the taste. Should these expedients fail, the patient may be instructed to put into the mouth a teaspoonful of marmalade or of black currant preserve; and, having well lubricated all parts with the sweetmeat, so as to fully absorb the attention of the gustatory nerve, then swallow the oil. Advantage frequently results from closing the nostrils when taking the dose. 2. *Those in which the oil excites sickness, and is quickly rejected by vomiting.* Many of the expedients mentioned above will obviate also this source of difficulty, more especially the use of bitters. Very few cases, indeed, will resist the influence of hydrocyanic acid and bismuth exhibited three times daily for a few days preparatory to the trial of the oil, and continued during its employment. Patients should be directed to eat a little dry biscuit or bread-crust before the oil, and then to take it floating on a cup of the coldest spring water. If these fail, as a last resource, the dose should be given in the recumbent posture, that is, in the morning, an hour or two before getting up, and in the evening, after going to bed. This last suggestion is one emanating, we believe, from Dr. Birkett, of the City Chest Hospital, and often answers very satisfactorily. 3. *Cases in which the oil cannot be digested.* This is a large and very important class. Patients complain that they have a great repugnance to the oil, that it makes them feel sick for hours afterwards, though seldom causing actual vomiting; that everything they take after it seems to taste of it, and that thus all relish for food is destroyed; that the oil "rises," either oily or with a most nauseous acid flavour. They

frequently have bilious attacks; and, for a day or two in each week, probably the repugnance to the remedy is so great that they are quite unable to overcome it. If pushed under these circumstances, the oil does more harm than good; there are, however, extremely few such cases in which careful attention to the digestive organs will not enable its administration to be successfully conducted.

We copy the following formula from the Pharmacopœia of the City Hospital for Diseases of the Chest, where it is in general use for the relief of the condition alluded to:—

“℞. Rad. rhei ℥ij; rad. zingiberis ℥ij; rad. gentian. ℥iss; sod. carbon. ℥ij; aquæ pur. ℥vijj.”

The roots having been cut into small pieces, the infusion is made with cold water, and, after standing in a cool place for about twelve hours, is strained. The mixture is clear and bright, and not in the least disagreeable to take. In cold weather it keeps well; but in summer the addition of some tincture is necessary to prevent it from becoming thick. If cough be present, it is usual to combine with each dose from half a drachm to a drachm of paregoric; if sickness, from two to three minims of the hydrocyanic acid; and if the signs of atony, a small quantity of the tincture of gentian, calumba, or hop.

By the use of this mild stomachic (a wineglassful thrice daily), for a week or two before commencing the oil, and then continuing it during the exhibition of the latter, many patients have been induced to bear it with advantage, who had failed in other prior attempts to do so. The mixture is so mildly aperient that it almost never purges, and it may be continued for months together with the effect of improving most markedly both the appetite and the digestion. 4. *Cases in which the oil, although taken easily, cannot be borne in full quantity, and does not appear to produce much benefit.* In many cases of phthisis coming under this head, the combination of tonic medication with the use of the oil often answers well. So generally, in fact, is advantage derived from such combination, that at the Hospital for Chest Diseases there are very few patients, indeed, who take the oil alone. In almost all it is exhibited together with either the stomachic mixture above noticed, or some form of tonic. The favourite tonics are the sulphates of quinia and iron (gr. j with gr. ij ter die), or the sesquichloride of iron. The latter is extensively prescribed with the mineral acids in infusion of quassia; or, if the stomach be delicate, in the following more elegant form, which is a prescription of Dr. Risdon Bennett's: ℞. Tinct. ferri sesquichl.

℞; acid. nitrici dil. ℞; syr. zingib. ʒss; aq. menthæ viridis ʒj. Ft. haust.

Notice has been made repeatedly in our hospital records during the last two years of the practice of combining the use of cod-liver oil with that of mercury, in small doses long continued, which prevails extensively at the Hospital for Skin Diseases, in cases of lupus and cutaneous struma, and at several other institutions, in the treatment of chronic disease of the joints. This kind of treatment is becoming increasingly prevalent, and is certainly very applicable to many forms of strumous inflammation. The plan of giving the oil to counteract the depressing effects of a mercurial course for the cure of syphilis in cachectic states of the constitution has also been previously mentioned, and is well worthy of being borne in mind.—*Med. Times and Gaz.*, May 13, 1854. [*From American Journal Medical Sciences.*]

Aconite as a Local Anodyne. (*Medical Times and Gazette*, November, 1853) The comparative value of several of our local anæsthetics, was well exhibited in a case recently under the care of Mr. Curling, in the London Hospital. The patient, a woman of 47, had a patch of dry gangrene on the outer side of the left foot. Its slow increase was attended with such intense pain, that for several weeks she scarcely slept at all. To obtain relief, chloroform, on lint beneath oil-silk, belladonna lotion, and the solution of opium, were severally applied to the part, with, however, but very slight and temporary benefit. A liniment consisting of equal parts of the soap liniment and of tincture of aconite, was then ordered to be used in the same manner; and so great was its efficiency, that under its influence the poor woman was frequently able to obtain a very fair night's rest. This case is only one among many in which we have seen proved the powers of aconite as a local remedy.

Prize for the Cure of Cholera. (*Am. Jour. of Pharmacy*) The Academy of Sciences of Paris, has received a legacy, 100,000 francs, (\$20,000), left by a generous philanthropist, M. Breant, as a recompense for him who shall discover a remedy for cholera. As this is not likely to be soon awarded, it is proposed to give the interest annually for the most useful discovery connected with cholera. During the first empire, a similar sum was left for the curer of croup, which has not yet been awarded. The new legacy will only serve to swell that large sum which the Academy annually distributes in the form of prizes.

AMERICAN MEDICAL ASSOCIATION.

From the proceedings of the American Medical Association, we make the subjoined extract:

The Committee on Nominations, in fulfilling the duty imposed upon them, recommend the continuance of several of the special committees previously created, and the appointment of some new ones. They, therefore, submit the following list of Chairmen of special committees, with the subjects to them committed:

Dr. Worthington Hooker, of New Haven, Connecticut, on epidemics of New England and New York.

Dr. John L. Atlee, of Lancaster, Pa., on epidemics of New Jersey, Pennsylvania, Delaware and Maryland.

Dr. D. J. Cain, of Charleston, S. C., on epidemics of South Carolina, Florida, Georgia and Alabama.

Dr. W. L. Sutton, of Georgetown, Ky., on epidemics of Tennessee and Kentucky.

Dr. Thos. Reyburn, of St. Louis, Mo., on epidemics of Missouri, Illinois, Iowa and Wisconsin.

Dr. Geo. Mendonhall, of Cincinnati, Ohio, on epidemics of Ohio, Indiana and Michigan.

Dr. E. D. Fenner, of New Orleans, La., on epidemics of Mississippi, Louisiana, Arkansas and Texas.

Dr. James Jones, of New Orleans, La., on the mutual relation of yellow and bilious remittent fever.

Dr. D. V. Condie, of Philadelphia, Pennsylvania, on the causes of Tuberculous Disease.

Dr. Jos. Leidy, of Philadelphia, Pa., on diseases of the Parasitic Origin.

Dr. A. P. Merrill, of Memphis, Tenn., on the Physiological Peculiarities and Diseases of Negroes.

Dr. Jos. N. McDowell, of St. Louis, Mo., on Statistics of the operation for the Removal of Stone in the Bladder.

Dr. F. P. Porcher, of Charleston, S. C., on the Toxicological and Medicinal Properties of our Cryptogamic Plants.

Dr. Daniel Brainard, of Chicago, Illinois, on the Constitutional and Local Treatment of Carcinoma.

Dr. Geo. Englemann, of St. Louis, Mo., on the Influence of Geological Formations on the Character of Diseases.

Dr. Henry Taylor, of Mount Clemens, Mich., on Dysentery.

Dr. Horace Green, of New York, on the use and effect of applications of Nitrate of Silver to the Throat in Local or General Disease.

Dr. P. C. Gooch, of Richmond, Va., on the administration of Anæsthetic Agents during Parturition.

Dr. Chas. Hooker, of New Haven, Conn., on the Diet of the Sick.

Dr. E. R. Dabney, of Clarksville, Tenn., on certain forms of Eruptive Fevers, prevalent in Middle Tennessee.

Dr. Sanford B. Hunt, of New York, on the Hygrometrical State of the Atmosphere in various localities, and its influence on health.

Dr. Frank H. Hamilton, of Buffalo, New York, on the Frequency of Deformities in Fractures.

Dr. G. S. Walker, of St. Louis, Mo., on diseases of the Prostrate Gland.

Dr. H. A. Johnson, of Chicago, Ills., on the Excretions as an index to the Organic Changes going on in the System.

Dr. Leroy H. Anderson, of Sumpterville, Ala., on the Typhoid Fever and its complications as it prevails in Alabama.

Dr. W. H. Byford, of Evansville, Ia., on the Pathology and Treatment of Scrofula.

Dr. N. S. Davis, of Chicago, Illinois, on the Nutritive Qualities of Milk, and the influence produced thereon by pregnancy and menstruation in the human female, and by pregnancy in the cow; and also on the question whether there is not some mode by which the nutritive constituents of milk can be preserved in their purity and sweetness, and furnished to the inhabitants of cities in such quantities as to supercede the present defective and often unwholesome method of supply.

Dr. M. M. Pallen, of St. Louis, Mo., on Puerperal Convulsions.

Dr. E. B. Haskens, of Clarksville, Tenn., on the Microscopical Investigations of Malignant Tumors.

Dr. Geo. K. Grant, of Memphis, Tenn., on the Sulphate of Quinia as a Remedial Agent in the Treatment of Fevers.

Dr. R. R. McIlvaine, of Cincinnati, Ohio, on the study of Pathology at the Bedside.

Dr. E. S. Cooper, of Peoria, Ills., on Orthopædic Surgery.

Dr. Andrew F. Jeter, Palmyra, Mo., on the Modus Operandi of the Envenomed secretions of healthy Animals.

Dr. Samuel M. Smith, of Columbus, Ohio, on Insanity.

Dr. Rene La Roche, of Philadelphia, Penn., on the Jaundice of Yellow Fever in its Diagnostical and Prognostical Relations.

Dr. Charles Q. Chandler, of Rocheport, Mo., on Malignant Periodic Fevers.

Dr. S. B. Chase, of Portland, Maine, on Typhoid Fever in Maine.

Committee on Plans of Organization for State and County Societies.—A. B. Palmer, M. D., Michigan; R. R. Mellvaine, M. D., Ohio; D. L. McGugin, M. D., Iowa; E. R. Peaslee, M. D., New Hampshire; Thos. Lipscomb, M. D., Tennessee.

Committee on Medical Literature.—Robert J. Breckenridge, M. D., Kentucky, Chairman; A. A. Gould, M. D., Mass.; D. L. McGugin, M. D., Iowa; J. B. Flint, M. D., Ky.; O. M. Langdon, M. D., Ohio.

Committee on Medical Education.—Wm. H. Anderson, M. D., Alabama; A. Lopez, M. D., do.; Andrew Murray, M. D., Michigan; A. Ramsey, M. D., Tennessee; R. D. Ross, M. D.

Committee on Prize Essays.—Rene La Roche, M. D., Pennsylvania; Isaac Hays, M. D., do.; Alfred Stille, M. D., do.; J. B. Biddle, M. D., do.; Geo. W. Norris, M., do.; Joseph Carson, M. D., do; Joseph Leidy, M. D., do.

Committee of Arrangements.—Isaac Hays, M. D., Pennsylvania; G. Emmerson, M. D., do.; Wilson Jewell, M. D., do.; Alfred Stille, M. D., do.; Francis West, M. D., do.; Wm. V. Keating, M. D., do.

Committee on Publication.—Pliney Earle, M. D., New York; D. Francis Condie, M. D., Pennsylvania; E. S. Lemoine, M. D., Missouri; A. March, M. D., New York; E. A. Davis, M. D., do.; C. R. Gilman, M. D., do.

EDITORIAL NOTICES.

We call attention to the advertisement of the *Memphis Medical College*. Though hitherto not quite so prolific as some of her Southern sisters, in every feature which constitutes a *Medical Alma Mater*, she is, as we believe, as worthy; at any rate, in all that pertains to wise and virtuous maternity, she is unsurpassed by any. Professor WELLINGTON, as a teacher of *Chemistry and Toxicology*, brought from the University of London, from William and Mary College, Virginia, and from the Mississippi University, an enviable though still increasing reputation.

Prof. QUINTARD, probably from being the favored pupil of that distinguished instructor in medicine, Dr. Valentine Mott, early acquired such habits of intellectual industry—close discriminating thought, deep research, etc.—as ever, when perseveringly practiced, lead to honorable distinction. Our readers will remember a few of his learned, dignified and facile contributions to this Journal—controversial articles, which, though unexceptionably respectful, were models of acuminated medical repartee. As a speaker, we understand, he is peculiarly eloquent and captivating.

Prof. GUTHRIE, in his department, is supposed to be, I was going to say, without a rival, but will amend by saying, at least, equal to any man in the western country; and, as one of the American drug inspectors, has acquired not only a national reputation, but renown across the waters. His practical skill, costly plates, and ample herbarium, give additional interest and importance to the chair of *Materia Medica and Pharmacy*.

Prof. MERRILL, one of the editors of the "*Memphis Medical Recorder*," both as a writer and lecturer, has shown himself worthy the distinguished consideration which he has received not only at the hands of the American Medical Association but from his medical brethren elsewhere. To an accumulated fund of information, he is enabled to add much that is invaluable to the student from his own experience and observation.

Of the *Obstetrician*, Prof. SHANKS, so long and favorably known to the profession, we need not say a word.

Prof. HERSHEL S. PORTER, we have known most favorably from our very boyhood.

But we have extended this notice much beyond what we designed.—The other gentlemen in connection with the school, are presumed not unworthy their distinguished associates.

We have before, when alluding to Prof. Porter's address to the graduating class, had occasion to allude to the proudly eminent moral position of this institution. We do so again, because we know of nothing in which parents, guardians and preceptors are so justly culpable as in reference to

their disregard of the infidel and immoral sentiments entertained and inculcated by the teachers of their young men; and because we know of no place on earth where the prominent principles of moral science may be more easily and indelibly impressed upon influential minds than in connection with the disclosures of physical science; and, when neglected, there are none which tell so fearfully, not only upon students, but society at large. Medical students, especially, go from school to permeate and impress every department of society. Each becomes, to some extent, the centre of an influence round whom gather crowds of eager, listening and learning city, village or country friends; and when to these already established centres you add the ever multiplying and increasing tide of medical students, who does not see that their influence for weal or woe is soon to be really overwhelming? So truly do I believe this, that I have no doubt that medical men to-day exert a greater influence than any other class of men—not the clergy excepted. How important that the fountain of our learning should be pure!

J.

MEDICAL DEPARTMENT OF THE UNIVERSITY OF PENNSYLVANIA.—On another page of the Journal, our readers will notice the announcement of the Medical Department of the University of Pennsylvania, the veteran pioneer of Medical Education in the United States. This Institution has an able Faculty and fully sustains the reputation of being what it ever has been,—the first Medical School in America.

K.

Dr. L. M. LAWSON, of Cincinnati, has resigned the chair of the Practice of Medicine in the Medical College of Ohio. He has been so long and honorably connected with this Institution, that we had come to regard him rather as a permanent fixture,—a pillar of strength, immovable, round which the tumultuous waves of faction and discord might beat and break unceasingly. The Dr. is such an one as would anywhere be regarded an ornament to man's nature, and to the Medical profession: one to make others glad that they are men. Many offers of position in other schools, will now doubtless be made him, and that one will be fortunate indeed, which secures his services.

J.

Dr. J. LAWRENCE SMITH, once, we believe, resident of Charleston, S. C., is now professor of Chemistry, etc., in the Medical Department of the University of Louisville.

CHOLERA.—From various sources, we learn that this disease which has prevailed in different sections of the United States, during the present summer, is gradually disappearing. It is contended by some, that the Cholera of the present season is not the same disease which has heretofore

visited, the Mississippi valley, at least. That it has been more malignant than usual, is no doubt true, from the frequent and dangerous complication of gastroenteric inflammation, which was present in all the fatal cases we have had the opportunity of witnessing. It is evident that fevers in the South, at least, are assuming a new type, and that cholera is hereafter to be ranked among the endemic diseases of the western world. K.

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 BOOKS RECEIVED.—We are under obligations to the publishers, Messrs. Blanchard and Lea, for the following valuable publications just issued from the press. We regret that we have not time, owing to the lateness of the reception, to notice their contents in our present issue:

Parker on Syphilis;  
 Hughes on Auscultation;  
 Meigs' Woman and Her Diseases;  
 Bennet on Pulmonary Tuberculosis.

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 PAMPHLETS, CATALOGUES, &C., RECEIVED:

Fifth Annual Report of the Female Medical Education Society, and the New England Female Medical College. Boston: Published by the Society. Samuel Gregory, Secretary, 1854.

Tableau of the Yellow Fever of 1853, with Topographical, Chronological and Historical Sketches of the Epidemics of New Orleans since their origin in 1796, illustrative of the Quarantine Question. By Bennett Dowler, M. D., Corresponding Member of the Academy of Natural Sciences of Philadelphia, &c., &c. New Orleans, 1854.

College of Physicians and Surgeons in the City of New York. University of the City of New York. Catalogue of the Officers of the University and of the College, and annual announcement of Lectures. Forty-eighth session, 1854-'55. New York, 1854.

Third Annual Announcement of Lectures of the Miami Medical College of Cincinnati. Session of 1854-'55. Cincinnati, 1854.

Catalogue of Books, &c. from Lindsay & Blakiston, Publishers and Booksellers, 25 South Sixth street, above Chesnut street.

Address to the Citizens of East Tennessee. By Frank A. Ramsay, M. D. Knoxville, July 22, 1854.

Annual Report of the City Inspector of the City of New York for the year 1853. New York, 1854—pp. 264.

Catalogue of the Alumni and of the Trustees and Faculty of Castleton Medical College, since its establishment in 1818. Published by direction of the Society. Rutland, 1854.

Annual Announcement of the Medical Department of Pennsylvania College. Ninth street, below Locust, Philadelphia. Session of 1854-'55. Philadelphia, 1854.

Tenth Annual Announcement of the Ohio College of Dental Surgery. Session of 1854-'55. Cincinnati, 1854.

Third Annual Announcement of the Philadelphia College of Dental Surgery. Session of 1854-'55. Philadelphia.

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ORIGINAL ARTICLES.

ART. XXXVIII.—CLINICAL NOTES AND OBSERVATIONS ON OBSTETRICAL PRACTICE.

By RICHARD O. CURREY, M. D., KNOXVILLE, TENNESSEE.

1st *Dysmenorrhœa*.

Is Dysmenorrhœa a rheumatic affection? Is it not often complicated with displacements of the womb? Does it not lead to suppression and consequently to vicarious menstruation?

The celebrated Dr. Dewees, acting upon the belief that this disease was chiefly of a rheumatic character, treated it, and very successfully, with a preparation of Guaiacum, which as the formula was his own, has received the name of Dewee's Tincture. There seems however to be a diversity of opinion as to its virtues, for it has not fulfilled to the same extent the expectations of other physicians. Again, *polapsus uteri*, and other displacements of the womb, will certainly be attended with a painful menstruation, from the fact that the engorged vessels of the uterus do not admit of that free and ready passage of the menstrual fluid which nature requires. When thus resulting, it is but a symptom of another affection, which demands relief before a cure can be obtained—so great too must be the compression which the vessels of the womb receive in

their displacement, as to produce complete suppression of the catamenial flow. The efforts of nature to relieve herself of this state of congestion, frequently produce a periodic hemorrhage of dark, thick blood from the mucus coat of the stomach—a diarrhœa more or less bloody—or an obstinate vomiting. It is not always however that such relief is obtained; if such it can be termed. For even though it may result in the emptying of the engorged vessels of the uterus, yet such is the injury which the entire system receives from this perversion of a natural secretion that the unfortunate female eventually succumbs to the complaint. The following notes from my case-book illustrate these views:—

Milly, a slave, has never menstruated. This is now her 18th year of age. For two years as the period has approached, she has felt an uneasiness in her bowels, resulting in an obstinate diarrhœa—the checking of which at any time has given her the severest pains in loins, back, legs and bowels; and the brain has sympathized deeply with the suppression of the drain thus established for her relief. Her catamenia has never appeared more than a few drops at a time—just sufficient to show that the period had arrived. For a few days previously sharp lancinating pains dart through the lower part of the abdomen—there is an increase of the already swollen abdomen. She has nausea at such times, but finds relief to some degree as soon as her diarrhœa comes on, which is always more or less bloody. Suspecting that her irregularity proceeded from an imperforate hymen, and this diagnosis being confirmed by the swollen abdomen, an examination was made. The hymen presented a convex surface somewhat elastic, yet regaining its convexity as soon as the pressure was removed.—There also seemed to be a fluid within the vagina. Hoping for the best, and assured that no ill could result from the operation, especially as no relief had been obtained from the medical treatment of her former physicians, proposed opening the hymen. For this purpose a bistoury was carefully passed through its central point, and then a crucial incision made, dividing the membrane into four parts. This was followed by the discharge of a quantity of dark menstrual fluid, with great relief to the patient. Bougies were subsequently used to pre-

vent the cicatrization of the incisions. The result has been a perfect cure—although for a month or so after the operation there was a great tendency to diarrhœa, as at former times.—This was remedied, and all things have since gone on well.

In this case the remedy consisted in removing obstruction, and we note it in order to show the effort of nature to relieve herself, if not in that way provided—then by some other discharge. The pains accompanying each monthly period were acute, but as they came from obstructions, there could no relief be afforded till these were removed. This was not strictly a case of dysmenorrhœa, yet the symptoms simulated that affection.

Miss — at each menstrual return has nausea and vomiting. For several years she has menstruated regularly and freely—but, within the six months previous to coming under my charge, has experienced severe pains—tumefaction of abdomen, accompanied with nausea and vomiting of bilious matter. She is of a constipated habit, and full and plethoric in person. The stomach being relieved by camphor water and morphia—the application of hot fomentations to the epigastrium and a brisk enema, has generally relieved this perverted state of things, and brought on the catamenial flow, which afterwards has gone on in every respect healthily to its close. Regarding this case as the result of a constipated and sluggish habit, she was put upon the use of the prescription composed of

Best Turkey Rhubarb,
Venetian Soap,
Cape Aloes, $\acute{a} \acute{a}$ 3
Oil Cloves, gtt iv

Make 48 pills, and take one pill night and morning—nutritious diet—and to avoid exposure.

From last accounts, this case had done well, the next period being unattended comparatively with pain, and neither nausea nor vomiting.

Here again was an obstruction, but the result of overloaded and costive bowels, which needed relief in order that other important functions should be properly performed.

Mrs. —, also of constipated habit, and of delicate constitution, was, even previous to her marriage, and for five

years afterwards, subject to painful menstruation. For the first five years of her married life, she was without issue; during which time she was put upon various modes of treatment, all having direct reference to the uterine affection, without regard to her digestive organs. On coming under my charge, I found her so enfeebled from imperfect digestion, that my attention was directed to that function, and by means of cold bathing, wholesome food, outdoor exercise, and giving tone to the chylo-poetic viscera, she was in a few months so relieved that her digestion was duly performed—appetite and general health improved. Regular daily evacuations succeeded to those which were before only occasionally. At this stage of her disease she was put upon

Vinous Tincture Gentian, One pint,
 Carborate Iron, 3 iss

Dose, tablespoonful an hour before each meal—and in a few months, during the fifth year of her married life, there was “a babe in the house” as

“a well-spring of pleasure,” (as Tupper has it.)

One more case. Mrs ———— supposed to be a consumptive, on account of the hemorrhages which frequently took place, as was believed, from her lungs. Has been married three years, is 19 years of age, and has only one child, 15 months old. She is represented as having had a very protracted labor; and accompanied with profuse hemorrhage. Her weight before marriage was 135 lbs., it is now only 70. Since her confinement, she has suffered from continued ill-health. Her menstrual flow has never been either at regular times, or proceeded in a regular healthy manner, nor of a healthy character. The monthly period for August was just at hand.—Her countenance was pale and haggard; was much reduced and weak, having to be supported from her carriage to her house; and very nervous; pulse, small and feeble, and vertigo, whenever she assumes the erect posture. At the time that she was placed under my charge, her menstrual flow was just beginning; and she was, in consequence, suffering the most excruciating pains in her back, loins and knees. From the hands to the elbows, and from the feet to the knees, the surface was of an icy coldness. Frequent discharges were ta-

king place from the bowels of a dark color, mixed, more or less, with blood, but sometimes entirely of this fluid. She would also frequently spit up mouthfulls of dark blood; especially after coughing; slight pains in the region of the mamma. This hemorrhagic tendency was always greatest during the menstrual period, but it occasionally appeared, although slightly, during the intervals. Most generally they commenced and ceased with it. At this period of observation, the menses were of a brownish color; but of natural quantity; and attended with great pain.

Adopting a palliative treatment, I was enabled by means of doses of Dovers Powder and camphor, hot fomentations to the abdomen, sinapisms to the extremities, and warm teas and stimulants, to bring about a reaction of the system. During this menstrual period, I had ample opportunity of seeing to what extent the disease had affected her general health, as well as the severity of the disease itself. So intense was the pain, and so debilitated was the patient, that her pulse repeatedly declined almost to a thread; and she would frequently swoon away.

She had been under treatment for incipient pthisis, and had passed through the regular ordeal of nauseating doses of Ipecac; Sugar of Lead and Opium, strengthening plasters to chest, &c., &c.

During the interval which was now to elapse, the treatment adopted aimed to secure 1st, the benefit of alteratives; 2nd, the restoration of tone and vigor to the digestive organs; and 3d to equalize the circulation of the blood. Consequently, during the first two weeks of Sept. there was administered a blue pill every evening, with repeated applications of mustard plasters to wrists and ancles, and her diet restricted to farinaceous articles, mucilaginous drinks; slight ptyalism was produced and the discharges from the bowels became of a dark bilious character; when the operations were too frequent, a Dovers powder was administered, which exerted a fine effect not only on the bowels, but also on the hitherto harsh and dry skin, in bringing out a gentle diaphoresis. During the third week of the interval, the secretions of the bowels having assumed a healthy appearance, with the exception that now and then

slight inclination to the hemorrhagic character would present itself, she was placed upon the use of Elixir Vitriol, 10 drops in a wineglass of sweetened water, twice per diem. Light diet and attention to drink enjoined. The monthly period of the last of Sept. came on, but though there was the intense pain of the previous month in back, loins and limbs; yet the affection seemed altogether local. There was no hemorrhage either from bowels or stomach; hands and feet gently warm, moist, and pulse fuller and even natural. The pains of the flow were relieved by fomentations and a Dovers powder; and the period passed off more comfortably than the previous one. During the flow, and mixed with it, were long white flakes of a membranous nature.

October.—Regarding all the symptoms as favorable during this month, I placed my patient upon the following prescription of Dr. Dewee's:

R. Gum Guaiacum pulv, ℥iv
 Pimento pulv, ℥i
 Carb. Pot. ℥iiss
 Diluted Alcohol, One pint.

Mix and digest for a few days. Decant and filter. To each pint of the filtered tincture was added,

Precip. Carb. Iron ʒ ij.;

of which a table-spoonful was to be taken in a little wine or sweetened milk, an hour before each meal. The bottle was ordered to be shaken before using.

This treatment, conjoined with a gentle laxative whenever the bowels were slow of action, was kept up during the entire month. The next period was watched for with anxiety. It came, passed off with great ease and naturally—no pains; no coldness of extremities; no hemorrhagic discharges from bowels or stomach, “the first time she had done so well since the birth of her child.” So improved had my patient become in general health, that she was now able to take exercise on horseback, and was fast increasing in strength and vigor, and regaining her former fullness. Discontinuing the tincture during the catamenial flow, it was resumed as soon as the period passed, and ordered to be used unremittingly during the entire month. But unfortunately for her more speedy re-

covery, she had improved so rapidly as to induce her to believe that she could undergo a ride on horseback of 5 miles out to a relative's, and return the same day. The feat was performed, but at night I was summoned in great haste to see her. This was the first week after her last monthly course. She was lying upon her back; knees drawn up, and complaining of a heavy weight in the region of the womb, with bearing down pains. Pressure of the hand increased the pain. Externally, the hypogastric region was slightly depressed—the skin being drawn up, as it were into a knot, the wrinkles radiating from the most depressed point, the skin over the round ligaments being puckered as the hem of a garment. In attempting an examination per vaginam, I was surprised to find the os uteri within an inch of the external organs; a case of severe and rapid *prolapsus uteri*; brought on evidently while the system was in its enfeebled condition, by the long ride of the day previous. The prolapsed organ was restored to its place, but could only be kept there by elevating the hips higher than the shoulders. Various pessaries were introduced, but all gave pain as long as they remained. Supposing that this proceeded from their weight, procuring some very fine and soft lamb's wool thread, I wound it into a flat ring, $2\frac{1}{2}$ inches in diameter—the central opening being about three-fourths of an inch across. The rim was nicely and smoothly covered with oiled silk. The pessary, thus made, did not exceed a half ounce in weight. It was introduced, adapted to the neck of the womb, and the patient requested to walk about gently. She experienced no pain from it, although allowed to take gentle exercise daily, yet for two weeks she was kept as much as possible in the recumbent posture. Every day the pessary was removed and a fresh one introduced. And as the next menstrual period approached, they were removed altogether. The use of the Tinct. of Guaiacum had been persevered in steadily, and when the period at last came round, patient and friends were all rejoiced at the ease with which it also passed off.

Continuing the use of the pessary for a few weeks longer, and her general health rapidly improving, she was released from all treatment, and permitted to return home, not, how-

ever, before exacting the promise from me that I should visit her, 30 miles distant, on the 1st November, to see how she would pass through the next period. Called at the time promised; remained a few days; no menses appearing, and both husband and wife seeming so full of joyous anticipation, I discharged her cured. It is needless to talk of the fruit which was reaped eight months from that time.

Note the points in this case. Painful menstruation, hemorrhage from stomach and bowels, and such debility as to produce during the ride a prolapsus. The dysmenorrhœa here was the original disease; but what caused it? Was there slight prolapsus all the time, and was the pain of menstruation caused by a strangulation of the engorged vessels of the womb? But she complained of no such displacement; and on examination, the womb was high up in the pelvis. But in dysmenorrhœa, may not the effort at menstruation cause the engorged womb to sink down in the cavity of the pelvis, and thus create the pains which are experienced? Do not the dragging pains of the loins and of the back indicate such sinking of the womb, and are they not thus produced rather than by the disease itself? But what is dysmenorrhœa? Its name merely points out its most marked symptom—painful menstruation. What are the pathological conditions of the womb that could give rise to so painful an affection? The great American accoucheur, Dr. Dewees, was fully impressed with the belief that it was a rheumatic affection, and hence adapted his remedies to this view. In the last case cited, the continued use of his preparation of Guaiacum effected a cure of the disease, the condition of the patient's system, however, rendering a preparatory course of treatment necessary.

Dr. Mackintosh, of Scotland, observing that many, very many of the cases coming under his charge, presented a stricture of the cervix uteri, adopted the practice of dilating the os and cervix by means of bougies, for the cure of this affection.

And our own Dr. Meigs—I so designate him on account of the prominent position which he occupies as *the obstetrician* of our country—favors strongly the rheumatic theory of Dr. Dewees, admitting at the same time many, yes, innumerable causes which might give rise to painful menstruation. Dr.

Meigs differs from Dr. Dewees in reference to the character of the membranous excretion which is expelled in cases of dysmenorrhœa. Dr. Dewees regarding it as an evidence of the rheumatic condition of the womb, also indicating the presence of a highly congested, if not an inflamed state of the lining membrane, and probably also of the middle coat of the uterus—the sum of his opinion being that it is the result of inflammatory rheumatism; while Dr. Meigs is of opinion that it is rarely of the nature of rheumatism to produce plastic secretions upon surfaces—that it happens so only in the most violent cases. The opinion of Dr. Meigs being, which may be seen and read more fully in his 35th Letter on Woman and Her Diseases—that it is a plastic deposit similar to the plastic deposit in croup, phlebitis, pleuritis, &c., and that it is always an evidence of the inflammatory condition of the organ or surface on which it forms. Dr. Deuman regards this membrane as the production of a peculiar and specific inflammation of the *mucous* coat of the uterus, while it may be urged on the contrary, that the local as well as general symptoms of the disease, during the existence of which it is formed, indicate an affection of the substance—the muscular coats of the womb.

Our own experience, independent of the weight of authority, lead us to the conclusion that dysmenorrhœa *per se*; uncomplicated with any malformation or displacement of the organ, is a rheumatic affection. This conclusion is based upon the treatment best adapted to its cure, as well as upon the general character of the disease and upon the pathological condition of the organ.

2nd. Uterine Hemorrhage from abortion in the early months of pregnancy.

Lavinia, a slave, had miscarried at the fourth month—and according to the representations of the midwife, had done well, the after-birth escaping in due time, and attended with slight hemorrhage; she had also passed through the month without any unfavorable symptoms. *Five weeks* after miscarriage I was called in to see her, as she was said to be “flooding to death.” Gathered the foregoing fact as to her miscarriage from her mistress—and also that two days previously

this hemorrhage had begun, at first slight but rapidly increasing in quantity. Although regarding it as the result of the retention of fragments of the placenta, yet as upon examination the *os uteri* was not dilated to any great extent, but rather firm and hard, resolved upon testing the efficacy of the tampon and of internal remedies—accordingly making a strong solution of alum in vinegar and water, a tampon of linen rags was well saturated and pushed up in contact with the mouth of the womb. At the same time administered a pill of

Ac. Lead, 3 grs.

Opium, 1 gr.

to be repeated every hour according to circumstances. Remained several hours with her during which time the tampon came away. Replaced it with a fresh one, saturated as before. So great was the hemorrhage, that her pulse was scarcely distinguishable. Hands and feet cold, uttering low groans incessantly, and complained of pain in hypogastric region.—Can scarcely speak above a whisper.

Renewed visit at 1 P. M. The remedies had acted well—hemorrhage scanty. Removed tampon and re-applied a fresh one—discovered a slight tumefaction over region of womb—pulse increased in fullness, continue pills every 2 hours.

7 P. M. No hemorrhage since last visit; as she has had no operation for four days, as I was informed, prescribed a full dose of castor-oil; but such was the repugnance to receive it, that vomiting was induced. During the effort at emesis, the tampon was forcibly ejected, followed by a large clod of blood, and, more remarkable!—the half of a good sized placenta—to all appearances sound and free from all putridity. I say remarkable, for in the discharges there was no trace of putrid matter—and for more than two weeks previous to the commencement of this hemorrhage, she had had no discharges of any character whatever. After abortion I was told that the lochia gradually disappeared—and the firm contractions of the womb removed all suspicion as to any retained placenta.

Satisfying myself now that there were no fragments even of membranes left, prescribed an opiate with rest and quiet. The womb was contracted to a round ball, though much pain on pressure.

9 A. M., of second day. Patient had not rested well during night from great irritability of stomach. Bowels had been moved twice, probably from the portion of the oil having been retained. Pain in region of womb still troublesome, and the stomach being so irritable, applied a blister over the whole surface of the abdomen. No hemorrhage of consequence since 12 o'clock at night—womb still retains its roundness and firmness.

2 P. M. Stomach still irritable—blister drawn well—uterine pains but slightly relieved. Prescribed

Calomel, 5 grs.

Opium, $\frac{1}{2}$ gr.

to be repeated in 4 hours if no cessation of unfavorable symptoms.

9 P. M. Hemorrhage scanty—uterine pains and gastric irritability lessened. Pulse stronger and patient evidently better.

9 A. M., 3rd day. Febrile excitement—pulse full and quick—uterine pains increased and great heat over region of womb—stomach still irritable. Bowels moved once during the night. Continued the calomel and opium to be followed in 5 hours by castor-oil.

4 P. M. Vomiting entirely allayed—no action as yet from the oil—lochial discharge natural.

9 A. M., 4th day. Bowels freely moved during the night—entire freedom from fever, uterine pain and irritability of of stomach, voice—stronger—pulse natural—still continued recumbent position and nutritious diet.

9 A. M. 5th day. Rapidly improving—symptoms all favorable. Bowels gently moved—and on the 6th day she was discharged cured.

In this case so firm was the contraction of the womb upon the retained fragment of placenta, that it became part and parcel of the uterine substance. Otherwise why was it that no putridity took place even on its torn edge? It presented when discharged, all the appearance of having been but recently torn. During the four weeks, while the female was allowed to remain quiet in her room, taking part in no domestic duty whatever—there was no indication of any thing wrong, but

as soon as she begins to go about, and undergoes fatigue—a hemorrhage, but slight at first and almost overlooked for a few days, manifests itself. These bleeding orifices becoming larger as the womb dilates on account of the warmth of the blood poured into it—the hemorrhage soon assumes a more frightful character, and yet no regard was paid to it on the vain supposition that it would cease of itself. until the patient had well nigh sunk beneath its exhausting effects. Of course after the fragment of placenta had come away, it was too late to regret that on the first visit, when the character of the hemorrhage was ascertained, entirely devoid of putridity—that I had not thoroughly explored the uterine cavity to ascertain its cause. But the closed condition of the os uteri and the firm feel of the cervix, as well as the apparently firm and contracted fundus, when felt through the walls of the abdomen, threw me upon my therapeutic agents to arrest the discharge.—And though, as will be seen from the notes, they had the desired effect, yet no cure could have been effected but for the happy repugnance of the stomach to receive the oil, inducing thereby strong efforts at vomiting, and acting thus by a forcible compression upon the walls of the uterus, as well as by its relaxing tendency, to bring on an ejection of the contents of the womb.

ANOTHER CASE.—Mrs. ——— had missed, by two weeks, her usual monthly flow, and was somewhat depressed in spirits at the thought that she had again conceived. Being the fruit season of the year, she was engaged in the domestic duties of attending to the making of her preserves, occasionally performing parts of the work herself. A severe and fatal epidemic breaking out about the same time in the community, her fears for her family were somewhat aroused. And such was the effect upon her mind, added to the work of the two days previous, that uterine hemorrhage was induced. Apprized that she was of a hemorrhagic tendency, and that at all her confinements, she had suffered from the profuseness of flooding, and also that she had had several abortions—I was prepared for any emergency.

There were no contractile efforts of the womb perceptible to her, and but for the blood which came away in small clots

at intervals, she would have been ignorant of there being anything at fault. An examination *per vaginam*, revealed a slightly dilated os uteri, through which there could be felt the pendulous sac containing the ovum. Fearing lest the chances were against its preservation, and yet hoping, from the fact that it was still *within* the cavity of the womb, that an attempt might be awarded with success, I administered—

Pulv. Alum, exsic, 5 grains.

“ Nutmeg, 3 grains,

in thin syrup, to be repeated every hour. An oval ball of fine Turkey sponge was introduced and placed directly in contact with the womb—cold applications were applied externally on the hypogastrium and over the genitalia—and the patient placed in a supine position—head and shoulders on same plane with the hips. At the end of six hours there was an entire suspension of the hemorrhage, and the patient was quite tranquil. The tampon was removed, and on examination the os uteri was found firmly closed. In a few days she had entirely recovered from the effects of this onset—still, however, being enjoined to keep her bed, and use only the most nutritious and most unstimulating food.

Four days subsequently, I was again summoned at early dawn, as a renewal of the hemorrhage had just taken place. Stirring up the clotted blood in the vessel, I detected fragments of membranes, and *per vaginam*, could only find other portions protruding through the neck of the womb. But where was the embryo—lost in a two-fold sense—both to the patient and to myself. The os uteri was now very dilatable, and so introducing the fore finger within the uterine cavity, at the same time pressing upon the fundus with the other hand, I removed, by flexing the first joint to serve as a hook, the placenta and its membranes—and yet, notwithstanding the application of cold water—of a tampon of old soft linen saturated with vinegar and water, and at last of the internal administration of successive doses of a fine article of powdered ergot, the hemorrhage still continued for six hours to an alarming degree. Making an exploration again of the uterine cavity, and searching around for the concealed cause of the persistent hemorrhage, I was happy in finding a very small portion of

the placenta, half inch in length and only three lines broad, attached by one extremity to the upper surface of the womb. It was easily removed and drawn forth, yet before the finger was entirely withdrawn from the cavity, the womb immediately closed firmly upon it. From this moment all hemorrhage ceased. Ere this was secured, however, I came near losing my patient. Strict quietness was enjoined, and in less than a fortnight she was able to resume the charge of her household. There is always a cause for hemorrhage from the womb, and if it persists after the gravid uterus is supposed to be emptied of its contents, it may be fairly inferred that a portion still remains, and the practitioner should not, as he prizes the life of a human being, who has entrusted herself to his hands—hesitate what to do. Satisfy yourself at once that there remains no portion of the placenta, and this can be done only by a thorough exploration of the uterine cavity. Even if this results in finding no remnant of a membrane still adhering, yet the friction of the finger or of the hand in the inner walls of the uterine cavity, accompanied at the same time with grasping and frictions with the other hand over the fundus, may result and often does, in producing uterine contraction. To this let there be conjoined cold applications externally over the hypogastrium, and internally by means of linen tampons—together with a perfectly horizontal position, and the hemorrhages will, in almost every case cease. It is only where these remedial agents are improperly applied, and where the accoucheur has failed in removing every portion of the adhering placenta, that life is lost by uterine hemorrhage. The physician, in these cases, is the obstetrical surgeon, and he should be enabled to stop these bleedings with the same promptness, as when he is called to check the flowing of blood from the severed arteries of an amputated limb.

In these two cases there is quite a striking contrast. In the one, a half of the placenta was retained for five weeks in the womb, undergoing no putrefaction, and only throwing off blood when the patient resumes her daily tasks; so concealed, that its presence was not suspected until it was rejected by an effort of vomiting. In the other, a very small portion of the placenta of not more than four weeks growth, still adhering,

only six hours longer, causes dangerous hemorrhage, and that too in a patient whose mind and body was perfectly quiescent. In both, the hemorrhage, although controllable by therapeutic agents, was not checked until the immediate causes were removed. In the one, a dangerous puerperal fever resulted—in the other there was an immediate and speedy restoration to health.

ART. XXXIX. REMEDY FOR HYDROPHOBIA.

There is no disease to which the human family is liable, that has been the object of so much speculation and experiment as Hydrophobia; in order to find out an appropriate remedy and with so little success. Every remedy heretofore that appeared to be successful at first, has on further trial been found useless. It is my present object to offer to the public a remedy, the efficacy of which is so well attested that I think it well worthy of a fair trial; it was given me by my old friend Thomas Harvey who states he has used it in a great many cases, and assures me it has never failed in a single case. I have also seen many of his patients who fully corroborate Mr. Harvey's statement. It not only proves an effectual remedy in all stages of the disease but as a prophylactic of superior efficacy, always preventing an occurrence of the disease when given to a person that has been bitten by a rabid animal and before the period of incubation.

R. root of *Phytolacca* 1 ℥
new milk, iv ʒ.

Slice the root and boil it in the milk down to 7 ʒ, press the liquid thoroughly from the mass through a fine cloth. Half a tea-cupfull to be taken every hour until the disease disappears, when it should be gradually discontinued. When given as a prophylactic the above amount may be given four or five times a day for eight or ten days, it will nauseate, vomit and purge. The patient should take nothing but low diet during the treatment. Be particular to get out all the pulp of the root from the liquid.

W. N. HURT.

KILMICHAEL Miss., Sep. 1854.

ART. XL.—AN ESSAY ON THE MEDICAL PROPERTIES OF QUININE.

BY RICHARD H. DAY, M. D.

[The following essay on the medical properties of Quinine, read by Dr. R. H. DAY, before the Baton Rouge Physico-Medical Society, we extract from the New Orleans Medical and Surgical Journal. The Sulphate of Quinine is so extensively used in the Southern States in the treatment of fevers, and is employed to meet such a variety of indications, that it has become a point of the highest practical importance to determine accurately its true medical properties. Without endorsing or undertaking to defend each and every position assumed by the writer, we commend the article to the readers of the Journal, as worthy of a careful perusal,—the production evidently of a judicious and intelligent practitioner.—K.]

The subject, as stated to you at our last meeting, upon which, at this time, I intend to make a few observations, is the therapeutical properties of the sulphate of quinine.

My fellows will excuse me if, in this essay, I studiously avoid to appear learned, and decline noticing all the dogmas and dicta of the different authors, who have, from time to time, written upon this highly interesting subject. My purpose, gentlemen, is to be practical—to deduce from my own experience, and the observations of others, the true medical properties of the sulphate of quinine. That this subject is of the utmost importance, you will all readily admit; and, to us of the South, where its use has become so general and common, and I might add extravagantly large, it surrounds itself with the most absorbing interest.

To prescribe any medicine, intelligently and usefully, it is indispensably necessary that the therapeutic properties of that medicine be definitely and accurately known.

To prescribe it, under the vague impression of its being inherently stimulant or refrigerant, tonic or sedative, must give instability and want of precision to our practice, and, at least, reduce our efforts in the healing art to the humiliating character of *legal empiricism*.

What, then, I would inquire are the real medical properties of the sulphate of quinine? Is it a tonic or sedative? Narcotic; anti-spasmodic, or anti-febrifugic?—if you will allow the latter classification. It is well known that physicians

hold a contrariety of opinions upon this matter ; and, as a necessary consequence, differ much in their practice. I believe, however, there is no difference of opinion, among the medical faculty, in regard to the tonic qualities of this agent in small doses. The experimental researches of physiologists, and the universal experience of physicians, attesting its virtues in anæmic conditions of the system, in which there is no doubt of the impairment of vitality and a state of positive debility, have long since placed this drug at the head of tonics in the *Materia Medica*. That it is also a powerful anti-febrifuge is a settled fact, and gathers confirmation from every day's experience of its use. But, how it operates to produce this result? whether, by giving *tone* to the system and *increasing innervation*? or, acting as a direct and powerful sedative? is a question yet mooted in the medical profession. I take the position that it is a *tonic*, and that its power in controlling and arresting fevers, subduing arterial excitement and nervous irritation, is in virtue of its *tonic action, conjoined*, as I believe, with *peculiar and strong anodyne qualities*.

In order to settle this question we must go back to first principles. Those principles we must hold as land-marks and the light to guide and direct us in our observation of the phenomena of nature, that we may properly arrange the facts which we observe, and deduce correct conclusions therefrom.

I maintain, gentlemen, that no medicinal or physical agent can, *per se* and inherently, possess antagonistic properties. It may have a diversity of operation, but the power by which it operates, or *modus operandi* of operation, cannot be inconsistent and antagonistic with itself. That which is stimulant, is *stimulant* ; that which is tonic, is *tonic* ; that which is sedative, is *sedative* : except as a difference in special pathology and the mode of appeal may make a seeming difference in operation.

I will illustrate, to endeavor to make my position clear and tangible. No one will deny the stimulating properties of cayenne or brandy. And, yet how many cases of conjunctivitis and laryngitis have we seen cured, and cured rapidly under the local application of these powerful stimulants? The experience of every housekeeper confirms this truth, and makes the practice common in all civilized countries. Now, here is the seeming absurdity of stimulants curing inflammations, and the apparent contradiction of stimulants acting as sedatives. But, if we bear in mind the important *fact* that inflammation may be connected with and actually dependent upon a *debilitated* and *dilated* condition of the capillaries of the affected part, those seeming contradictions immediately

vanish, and the *modus operandi* of stimulating collyria in the cure of inflamed eyes, and of stimulating gargles in the cure of sore throat, is at once plain and rational to the intelligent pathologist, without resorting to the absurdity of asserting that the same remedy is both a stimulant and sedative.

No one questions the exciting property of electricity—that subtle fluid which pervades all nature and flies upon the airy breath of every atom of atmosphere. Our elasticity of frame and vivacity of intellect depend, no doubt, in a great measure upon its presence in a greater or less abundance in the atmosphere around us. More concentrated, but still controlled, and in the different electric and galvanic batteries, the most unquestioned evidences are given of its stimulant and tonic properties upon the human system.

But let the current be stronger still, as when the thunder cloud lets loose its pent up store and tracks the heavens by its zig-zag course, instead of stimulating, should the animal frame be placed within its track, a complete overwhelming of the energies or instant dissolution is the result. The unphilosophical beholder of these different results would say that electricity, in a small quantity, is stimulant and tonic—in larger doses, sedative. But, to the attentive and philosophic interrogator of nature's laws, another and a different conclusion would become manifest.

It is well known, and universally acknowledged by all physiologists, that every impression made and action had upon the living frame is through the excitability of the nervous system. It is well known, also, that any impression too long continued or too powerfully applied to this excitability, exhausts the principle itself and fails in its wonted effects, either partially or completely, as the application has been more or less protracted or intense.

In the instance of stunning, or death by lightning, the appeal has been made so powerfully to the excitability of the nervous system as partially or completely to exhaust that principle, and with it, as a necessary consequence, the impairment or the extraction of every vital function. Again, no one will deny that venesection is constantly, powerfully, and from the beginning, sedative in its effects. And, yet, what physician has not seen its employment act as a stimulant when the vital and animal functions have been oppressed by an active plethora or congestion of the vital organs? But, because blood-letting has taken off this oppression of the vital organs, loosed their trammelled energies, permitted the free exercise of their functions, quickened the circulation, and, as a necessary consequence, given manifest and decided increase to all the operations of life, will any one maintain that this potent sedative agent is a stimulant or tonic?

These observations are made to show the necessity and importance of studying general and special pathology, in order to understand the application and difference of action of remedial agents, as constituting a truer, more reliable and rational basis for the practice of medicine, than the absurd notion of attaching to the same medicine opposite and antagonistic properties.

Now, in reference to the action of quinine upon the human system, much disputation has been had in consequence of the disputants losing sight of, or overlooking, that peculiar and special pathological condition of the system, upon which depends the different and various actions of this agent.

Those who regard it as a sedative, in large doses, have been led into that error simply from observing its apparent effects in cases of vascular excitement, without regarding or detecting the peculiar condition of the system in which that febrile excitement originated. They lose sight of the important and settled fact, that the highest arterial excitement and perturbation of the system, and even inflammatory action itself, may and often does, supervene upon a depraved and debilitated habit of the constitution. And, such, I regard, to be the real condition of things in all those cases of fever, with or without inflammatory complaints, in which quinine has been so successfully given. If we look to the localities, either in this or other countries, in the treatment of whose diseases quinine has been so eminently successful, we shall see they are such as are supposed to abound in malarious influences, or of such climatic and atmospheric peculiarities as to *debilitate* and derange the whole nervous system. I simply refer to the fact, that in every section of country, where this agent is extensively used, intermittent, remittent and continued fevers, are the prevailing and endemic diseases, to establish my position; for, I believe all authors of late agree that this whole family of diseases originates in some cause acting upon and *debilitating* the nervous system.

The highest and most unquestioned authority, which I can quote, to support my views is the language of Dr. Watson, page 451 of his unequalled work on the "Principles and Practice of Physic." I might adduce other authority, and much of it; but when I have told you what Dr. Watson says, you have the best medical authority known. He says, "When I have told you that *debility*, any how produced, constitutes a predisposition to intermittent fever, I need scarcely add that all the multiform causes of debility may also be regarded as predisposing causes of this same disease, as they are of so many others." His language is still stronger when speaking of continued fevers, bearing upon the same point, but too long.

to quote, and I refer those who are not familiar with his views to his work.

But we need not written authority to establish this; every physician who has practiced his profession in a marked malarious district, as I have done, has seen in the inelasticity of frame, laxity of fibre, sallow complexion, erratic pains, and general malaise, evidences of the most unquestioned operation of some debilitating agent or influence on the nervous centres.

Now, it is in these localities and latitudes, where *debilitating* causes are known to exist, that quinine exerts its most herculean powers. As you go to more elevated regions, where climate and local causes give buoyancy and a high degree of vitality to the animal system, and develop diseases of a more acute and highly inflammatory character, *quinine* ceases to be used, and those remedial agents resorted to which are acknowledged to be ab initio depletive and sedative in their operation.

How comes it, if quinine be a sedative in large doses, that its use is limited to those diseases connected with or dependent upon *debility*, or restricted to the localities where *debilitating* causes are known to operate? Why is it not given in large doses in open, undisguised, high inflammatory affections, occurring in vigorous, athletic constitutions, if it be a sedative? Sedatives, proper, are not so dealt with. It avails nothing to say that quinine is given, either in large or small doses, in the same diseases and in connection with blood-letting and other depletants. It only shows the mixed and compound nature of diseases, and the imperative necessity resting on physicians to analyze every disease they are called to treat, and to understand its seat and nature, whether mixed or otherwise, before they undertake to prescribe. This may be irksome and seem foolish to the indolent and unobserving practitioner; but not so with the intelligent, practical physician; for he sees many cases in which it becomes necessary to combat local inflammations by depletants, general and local, and at the same time husband the resources and nourish and support the failing strength by the judicious administration of nutriment, stimulants and tonics.

If, then, I am correct in my position that in all those cases of high febrile excitement, with or without an inflammatory complication, in which quinine is successfully administered, the vital energies though lashed into excitement, are really laboring under the *oppression* and *debilitating* influence of some morbid agent, corrupting and vitiating the life-blood, or working some profound lesion of the *nervous centres*, the con-

clusion is inevitable that the "methodus medendi" of quinine is not sedative, but tonic and anodyne.

If we look to the elementary constituents of this potent alkaloid, as given by the learned Prof. Liebig, in his animal and vegetable chemistry, these views will be still further strengthened. I quote from the New Orleans Medical Journal of November, 1845, as reported by Dr. McCormick. He says, "However strange the idea may, at first sight appear, that the alkaloids of opium or of cinchona bark, the elements of codeine, morphia, quinine, &c., may be converted into constituents of *brain* and nervous matter, into organs of vital energy, from which the organic motions of the body derive their origin; that these substances form a constituent of that motion, by the removal of which the seat of intellectual life, of sensation, and of consciousness, is annihilated: it is nevertheless certain that all these forms of power and activity are most closely dependent, not only on the existence, but also on a certain quality of the substance of the brain, spinal marrow, and nerves; insomuch, that all the manifestations of life or vital energy of these modifications of nervous matter, which are recognized as the phenomena of motion, sensation, or feeling, assume another form as soon as their composition is altered. We must not forget that in whatever light we may view the vital operations, the production of nervous matter from the blood presupposes a change in the composition and qualities of the constituents of the blood. That such a change occurs is as certain as that the existence of the nervous matter cannot be denied. In contradistinction to the chemical character we find that the substance of the brain exhibits the characters of an acid. It contains far more oxygen than the organic bases or alkaloids. We observe that quinine and cinchonine, morphia and codeine, strychnia and brucia, which are respectively so nearly alike in composition, if they do not absolutely produce the same effect, yet resemble each other in their action, more than those which differ more widely in composition. We find that their energy of action diminishes as the amount of oxygen they contain increases, and that strictly speaking, no one of them can be entirely replaced by another. There cannot be a more decisive proof of the nature of their action than this last fact: it must stand in the closest relation to their composition. If these compounds, in point of fact, are capable of taking a share in the formation, or in the alteration of the qualities of the brain and nervous matter, their action on the healthy as well as the diseased organism, admits of a surprisingly simple explanation. It is singular that we find medicinal agencies, all dependant on certain matters, which differ in composition; and, if by the

introduction of a substance, certain *abnormal* conditions are rendered normal, it will be impossible to reject the opinion that this phenomenon depends on a change in the composition of the diseased organism—a change in which the *elements* of the remedies take a share—a share similar to that which the vegetable elements of the food have taken in the formation of fat, membranes, of the saliva, of the seminal fluid, &c., &c. Then, in a chemical sense, there is no objection to the opinion that substances or a composition analagous to that of nervous and cerebral matter, may be employed instead of the substances produced from the blood, either to furnish the necessary *resistance* or to *restore* the *normal condition*.”

Adopting Dr. McCormick’s language, I would say: “Now the cause of fever acting on the human organization may cause therein the waste of some element which is supplied in the quinine when given; and, as quinine and the cause of fever both act immediately upon the nervous system, it must be in that part of the organization we are to search for the explanation of fever. It would, therefore, seem that the proximate cause of fever consists in some modification of the nervous system by malaria, creating a change of structure or function and preternatural waste therein, as is seen to occur in other tissues during the progress of fever, and which are only remedied by the exhibition of articles containing the appropriate elements for the formation of such tissues; for instance—as gelatine is supposed to act in convalescence in restoring the cellular tissue, cartilage, &c., so *quinine* may be supposed to act as food, supplying waste or change in the organism produced by fever in the nervous tissue.”

With these views, how is it possible to regard quinine as a sedative? If fever result from a depressed and debilitated condition of the nervous system, and quinine in its elementary composition is shown to be food for that system, how, in the name of common sense, can it be regarded as a sedative in the cure of fever? Or, if it be a sedative in large doses, how can it be reconciled with consistency and sound rational treatment, to give an agent in such quantities as engenders that identical state of organism which is believed to be the foundation of diseased action? Regarding quinine as a *tonic* possessed of *peculiar anodyne* properties, a position which seems to be sustained by every view we can take of it, all the effects resulting from its administration, at once become plain and rational. If high febrile excitement, resulting from and depending on a peculiar depressed condition of the nervous system, be relieved by the free administration of quinine, it is plain that quinine has accomplished it by controlling or removing the cause which kept up that excitement, by supplying the

food or material needed by the nervous system to enable it to assume a normal condition.

The effects of general relaxation, tremors and prostration, which are always noticed when it is given in excess, (and which have given rise to the doctrine of its sedative action,) have resulted from the appeal having been too powerfully made upon the nervous centres, and instead of responding to the appeal, a stunned, confused, nervous agitation is the result, and an impairment of the functions corresponding to the degree of stunning produced. Given in proper cases, and in doses to meet their exigencies, it is a medicine whose virtues cannot be too loudly extolled; but, because it is thus potent for good and applicable to such a numerous family of diseases, I would not have its reputation blasted by its indiscriminate use in all cases, under the erroneous impression that it is both a tonic and a sedative, according to the quantum given, or the volition of the prescriber.

All will see the certainty of medical prescription when this notion lies at the foundation of practice, and the blunders and serious mistakes that must grow thereout. General and special pathology, that nice distinction in the nature and seat of morbid action, which distinguishes diseases and determines their appropriate treatment, is overlooked and leaves the practitioner to prescribe at random, and fight symptoms or an unknown disease, as best he may, in the dark.

While, then, I object not to the free and liberal use of quinine, and admit the wide range of its application in the diseases of the Southern and Southwestern portions of our country, still I maintain that it is important to entertain correct opinions in regard to its medicinal qualities, and the peculiar morbid actions of the system requiring its administration. If we entertain the opinion that in large doses it is sedative, regardless of the seat and intimate nature of diseases we are called to treat, much serious injury may be done, as already has been. I know that physicians have written much in our medical journals in regard to the safety and utility of quinine in certain forms of inflammation, and the disposition on the part of some to class all agents as sedatives that are capable of reducing febrile excitement, lessening nervous irritation, and under some circumstances admissible and useful in inflammation.

Knowing the sources of imperfect and fallacious observations in the field of medicine, and the strength of that ambition which prompts men to desire the applause of their fellows, we should receive all reports of the kind with caution and scrutiny. As is the case with other *patent* medicines, so with *quinine*; the good it has done, or seemed to do, has been

widely circulated; while the injury which has resulted from its improper and excessive use is hid in the dark and undivulging bosom of oblivion.

Our own experience and careful observations, had in accordance with the settled and established principles of medical science and the laws of vital action, must be the criterion by which we are to judge of the truth or fallacy of the observations and deductions of others.

Let us then look back over the field of our experience and call to mind the nature of the diseases, the quantity and mode of prescribing *quinine* and the phenomena attending its administration, and see if the views here advanced are not fully sustained.

In all those cases of high febrile excitement in which it has lessened the action and force of the heart and arteries, subdued pain, released the skin and thrown out upon its surface a free and genial perspiration, will not the pathology of fever, as herein stated and sustained by the highest medical authority, and the *tonic* and *anodyne* properties of quinine, as deduced from long experience and corroborated by the learned Liebig, in its chemical composition, fully explain the phenomena observed? And will not the same views rationally explain its salutary effects in certain forms of inflammation, engrafted upon a debilitated constitution? I think so; fully and clearly.

In regard, however, to its use in inflammation of any of the viscera or vital organs, whether supervening upon a broken down constitution or occurring during the progress of fever, my experience teaches me to be cautious. I have always found local inflammations, in whatever organs occurring, either at the beginning or during the progress of fever, materially to complicate the treatment and interfere sensibly with the administration and salutary effects of quinine. And, I hazard the opinion that in *active congestion* or *inflammation* of any of the viscera, except when preceded by free *depletion* or existing in a *sub-acute form*, connected with *diminished innervation*, that its use in large or full doses will always be injurious and perilous.

P. S.—Since this essay was written, I have had the pleasure of forming the acquaintance of Dr. W. J. Hord, a young man of intelligence, and a graduate of the University of Pennsylvania. I learned from him that Dr. Wood, the distinguished professor of the Theory and Practice of Medicine in that celebrated institution, holds opinions in reference to the medical properties of the sulphate of quinine which strengthen and confirm the views which I have here advanced to-day. Upon referring to the last edition of the U. S. Dispensary,

page 1175, I find Dr. Wood expresses himself in the following language: "Given largely, in diseased states, it has been the obvious cause of fatal results, not so much, however, by its peculiar action as by co-operating with the disease in establishing *intense local irritation* or *inflammation*, especially in the brain. From its occasional effect in diminishing the frequency of the pulse and the general strength, it has been supposed to be essentially sedative in large doses. Such an opinion, unless well founded, might lead to *hazardous practice*. The probability is that the apparently sedative effect upon the circulation arises from an *overwhelming stimulant* influence upon *cerebral centres*, whereby the system is deprived of the support of these centres, and the heart's action is depressed with other organic functions. Similar effects may be obtained from excessive doses of most of the cerebral stimulants. Examination of the brain in the lower animals, after death from quinine, has show great *congestion* of that organ and its membranes, and even *meningitis*. In the present state of our knowledge, therefore, it is safest to consider the sulphate of quinine as a direct and powerful *stimulant* to the brain."

ART. XLI.—NOTES OF CASES TREATED IN THE STATE HOSPITAL.

C. A.—A native of Germany 23 years of age—Unmarried,—temperate habits; admitted Aug. 4.

This patient states that he has been employed in a confectionary establishment for the last eight years; was taken sick about three weeks ago. *Condition to-day*, (4th.) Pulse 76 and full; skin warm and disposed to moisture; tongue heavily coated,—gums dark and scorbutic; breath very fœtid, and of a mercurial odour, though he has taken no mercurial preparation. Complains of a fixed pain across the lower part of the bowels, extending from one iliac region across to the opposite side. Says he has "swimming in the head," but no pain; anorexia. Strong relish for acid drinks; urine high colored; bowels constipated; muscular debility; Insomnia. *Pres.* Sharp lemonade for *constant* drink; mouth wash of chlorate of Potash; half grain of morphia at 9 P. M.

Aug. 5.—Pulse 70; Tongue still heavily coated from the tip to the root; less pain in the bowels; took some coffee for

breakfast; continue lemonade as a drink, and sol. chl. potash for mouth-wash. *Pres.* x gtts. Phos. acid. Sol. of strychnine in 3j of lemonade 3 times a day.

The pain in the bowels probably depends upon the torpid condition of the ileum and colon, and irregular distension of the canal from accumulation of hardened feces. There is evidently a functional lesion of the organic system of nerves, in connexion with a depraved state of the blood. Three comp. Cathartic Pills at 9 P. M.

Aug. 6.—Pulse 70, and regular; skin warm and moist.—Bowels moved once this morning from the pills; pain in the bowels decidedly mitigated. *Continue* lemonade as a drink, and Phos. acid sol. strychnine. 3 comp. pills at 9 P. M.

Aug. 8.—Pulse 70, skin warm and moist; tongue still coated, a dry brownish streak down the middle; slept much better than for several weeks past; pain in the bowels decreasing. No action from the bowels since yesterday evening. *Continue* strychnine and lemonade.

Aug. 9.—Pulse 72; tongue cleaning off, and moist; bowels moved once yesterday; slept well; pain across the lower part of the bowels gradually subsiding; apply mustard plaster over the lower bowels. *Continue pres.*

Aug. 10.—Patient is entirely free of pain in the bowels;—tongue clean and moist; pulse soft and regular; skin warm and moist; sleeps soundly; more cheerful, and improving appetite. *Continue* strychnine and lemonade, and allow a more generous diet.

Aug. 12.—Convalescent.

The whole difficulty in this case originated evidently from functional lesion of the organic nerves, inducing bad digestion, imperfect chylicification, impure blood, and depraved secretions, with a sluggish state of the bowels. The strychnine, I think improved the digestive and assimilative functions by its action upon the organic nerves, whilst the vegetable acid which was taken freely, aided, by quickening secondary assimilation, and supplying the blood with oxygen.

Case of Pneumonia, with gangrenous abscess in the left lung. From notes taken by Samuel L. Wharton, Resident Student.

E. B.—An Englishman 26 years of age, intemperate; has had several fits of *Mania a potu* during the past Summer—latterly has joined a temperance society and asserts that he has quit drinking. Admitted Sept. 16.

History of Case—Says he was attacked on last Thursday week, with pain in the left side of the chest—has been expectorating freely, and on Tuesday last he says he spit up some blood. Has been under treatment for several days, without any apparent relief of the more urgent symptoms, and says his physician had “given him out to die.”

Sept. 16. Condition this evening.—Pulse 98 and weak; skin hot and dry—tongue disposed to dryness and slightly coated with a dirty white coating; pain in the head; bowels costive; left side of chest gives an unusually dull sound upon percussion; respiratory murmur entirely absent; the right side of chest is also dull upon percussion, but not to the same degree as the left; respiratory murmur slightly audible.

Pres. Give 3 comp. pills with ℥j of Quinine at 8½ o'clock this evening to be followed by ℥j of Quinine at 6 o'clock A. M. to-morrow, if the skin should be moist.

Sept. 17, 9 A. M.—Pulse 86—skin moist; less difficulty of breathing; bowels evacuated 4 times during the night and once this morning. *Pres.* injection of ʒj Mur. Tinc. of Opium in ʒv slippery elm mucilage, to be repeated in case bowels should move during the day. Repeat Quinine at 12 M.

9 P. M.—Pulse reduced to 76; skin moist; tongue moist; perspired freely during the day under influence of the Quinine. No discharge from bowels since morning.

Sept. 18, 9 A. M.—Respiration less embarrassed; tongue moist and slightly coated; dulness on percussion of the left side unchanged; has had no discharge from bowels since yesterday morning. Further indications waited for. Pulse 82.

12 M.—Ordered a blister covering left lung.

9 P. M.—Blister has drawn well; pulse 89, accelerated no doubt in consequence of the exciting influence of the blister; tongue still moist and somewhat cleaner. Says that his cough has been more troublesome than usual during the evening. During one of the paroxysms of coughing, there was an escape of a remarkably fetid gas supposed to issue from the lungs,

which filled the room with an intolerable stench. No motion of bowels during the day.

Ordered blister to be dressed with simple cerate, To induce action of bowels, directed 2 comp. pills to be administered instanter, and to promote expectoration, a table-spoonfull of the brown mixture, every 4 hours.

Sept. 19, 9 A. M.—Pulse 96; tongue moist and slightly coated. Has had three motions of bowels since 9 o'clock last night.

R.—Cal. grs. xv
Opium “ iv
Con. Roses q. s.

Make a mass and divide into 4 pills; one to be taken every 3 hours. Discontinue brown mixture.

9. P. M.—Pulse 93. In other respects, condition the same as in the morning.

Sept. 20, 9 A. M.—Rested well during the night; small discharge from the bowels this morning, with pretty copious flow of urine. Tongue but very slightly coated. Pulse 93.

Directed Seidlitz powder to be administered instanter; \mathcal{E} j Quinine at 12 M., to be repeated at 4 P. M.— $\frac{1}{2}$ gr. morphia at 9 P. M.

Sept. 21, 9 A. M.—Patient says he feels better this morning; rested very well during the night. Had one discharge from bowels. Says that his cough is “looser,” and that he expectorates more freely. Urine more copious; tongue slightly coated. Pulse 89; Gums tender from the mercury administered on the day before yesterday. *Pres.*

R Hyd. Potash, 3ij
Water, 3ij

Dose.—1 Teaspoonful in 3ij water three times a day.

Sept. 22, 9 A. M.—No change in condition of patient this morning, except that his pulse is somewhat accelerated. Had a discharge from bowels during the night and again this morning.

9 P. M.—During the day had increase of fever. This evening, skin is inclined to be hot. Tongue more thickly coated than usual and tremulous; protrudes it with difficulty; pulse 98; at 3 o'clock this evening had risen as high as 106. Directed $\frac{1}{2}$

gr. Sul. Morphia to be administered instanter.

Sept. 23, 9 A. M.—Pulse this morning 105; rested pretty well during the night. Had a discharge from the bowels during the night and again this morning. Tongue still coated and tremulous. *Pres.*

R Gum Arabic	5ij
“ Camphor,	6ij
Spts. Turpentine,	3ij
Ipecac,	gr. iv
Water,	3vi

Make Emulsion—*Dose.* Tablespoonful every 3 hours. Suspend Iod. Potash.

Sept. 23, 9 P. M.—Had 3 evacuations of the bowels during the day; urine tolerably copious; skin warm and moist. Has evidently had an increase of fever during the evening. Says that his cough is more troublesome than usual. Pulse 111, fuller and stronger than usual; tongue as usual, slightly coated and tremulous. Directed $\frac{1}{2}$ gr. morphia to be administered instanter.

Sept. 24, 9 A. M.—Pulse this morning 104; rested well during the night, with exception of occasional paroxysms of coughing. Sputa thin and not adherent. Says he perspired freely during the night. His tongue this morning presents the usual appearance, except that the coating has a browner cast. Bowels moved once this morning.

Pres. Give x gtts. Veratrum Viride, three times a day; commencing at 12 M.

9 P. M.—Condition of patient less promising this evening; complains of nausea and uneasy sensations over the eyes, probably attributable to the effects of Veratrum Viride, which induced considerable nausea and vomiting about three hours after its administration, with a reduction of pulse to 72. This evening, pulse 100 and weak. *Pres.* Discontinue Veratrum Viride, and give 1 gr. Sul. Morphia.

Sept. 25, 9 A. M.—Patient rested well last night, but did not sleep much; no motion of bowels last night or this morning. His appetite is good and he ate his breakfast with relish. Tongue slightly furred, and the coating of a yellow tinge, which however is most probably caused by the coffee which

he took for breakfast; pulse 112 and weak; skin cool. *Pres.* Resume the Veratrum Viride, diminishing the dose to 4 drops, three times a day, commencing at 12 M.

9 P. M. Pulse to-night 110 and weak. Had considerable fever during the evening. Urine tolerably copious and of dark brown color. Had one discharge from bowels in the morning, of a dark appearance. *Pres.* Give one gr. morphia to-night in connection with the Veratrum Viride, and x grs. Quinine at 8 o'clock, A. M., and at 11 o'clock A. M. to-morrow.

Sept. 26, 9 A. M.—Pulse this morning 100. In other respects, no observable change since last night; slept well during the night; bowels evacuated once. *Pres.* Discontinue camphor Emulsion; continue Veratrum Veride.

9 P. M.—Patient seems quite weak this evening; pulse 98; perspired freely during the day, under influence of the Quinine; had less fever during the evening; lung quite sore and gives him much uneasiness when the paroxysms of coughing come on, at other times, he feels quite at ease; had one discharge from the bowels during the day. *Pres.* Discontinue Veratrum Veride, give $\frac{1}{2}$ gr. Morphia to-night.

Sept. 27, 9 A. M.—Patient seems quite cheerful this morning; has fine flow of spirits and converses cheerfully on indifferent topics. He called attention to the Sputa, intermingled with which, were observed flocculi of quite a dark hue. Pulse 100 and not unusually weak; tongue thinly coated and tremulous; seems to protrude it however, with somewhat less difficulty. *Pres.*

R	Gum Arabic,	5ij
	“ Camphor,	6ij
	Ipecac,	grs. viij
	Chloroform,	f 3ij
	Water,	f 3vi

Make Emulsion of which give tablespoonful every 3 hours.

9. P. M.—Patient still preserves his spirits; has had two discharges from his bowels to-day; tongue if any thing a little cleaner than it was; pulse 100. *Pres.* Give $\frac{1}{2}$ gr. Morphia to-night.

Sept. 28, 9 A. M.—Pulse this morning 93; tongue coated

over with white; slept well during the night; no motion of bowels.

9 P. M.—Patient cheerful; no marked change in condition; no discharge from bowels during the day; pulse 102. *Pres.* $\frac{1}{2}$ gr. Sul. Morphia.

Sept. 29, 9 A. M.—Says he feels “first rate;” no motion of bowels since day before yesterday; “feels like having one very soon;” cough looser and expectoration more copious; pulse 92 and slightly irregular. Continue Emulsion.

9 P. M.—Pulse this evening 112; skin moist; had three evacuations of the bowels during the day; expectoration tolerably free, nauseating to the taste, and of a fetid odor; says he does not feel so well; stomach slightly nauseated. *Pres.* Repeat Morphia to-night, 9 A. M.

Sept. 30.—Pulse 100; “feels very comfortable this morning.” Continue Emulsion.

9 P. M.—Pulse 102; had one discharge from bowels during the day; complains of an indescribable sensation in the upper part of the chest on the left side. *Pres.* $\frac{1}{2}$ gr. Sul. Morphia.

Oct. 1, 9 A. M.—Does not feel so well this morning as he did yesterday morning; did not sleep well last night. *Pres.* Continue Emulsion; apply blister over left lung and dress with strong mercurial ointment.

9 P. M.—Pulse 96; had one discharge from bowels to-day; blister well drawn; urine scanty and high colored. *Pres.* 1 gr. Sul. Morphia.

Oct. 2nd, 9 A. M.—Pulse 88; tongue slightly coated over with white; had no discharge from bowels during the night; “feels pretty well.” Discontinue Emulsion.

9 P. M.—Pulse 103; no discharge from bowels to-day, says he feels as though he were about to have one. *Pres.* 1 gr. Morphia.

Oct. 3, 9 A. M.—Pulse 96.—Thin white coating over tongue; had a discharge from bowels this morning.

9 P. M.—Pulse 126 and weak. *Pres.* Repeat Morphia.

Oct. 4, 9 A. M.—Pulse 140; no discharge from bowels since yesterday morning.

9 P. M.—Pulse 130; had a very small discharge from bowels late this evening; urine of dark brown color, and tolera-

bly copious. *Pres.* Give grs. x Quinine and $\frac{1}{2}$ gr. Morphia to-night. Repeat Quinine to-morrow morning at 7 o'clock.

Patient died on the 5th between the hours of 7 and 8 A. M.

Autopsy, 13 hours after death.—Pericardium contains between two and three ounces of a whitish serosity. Heart enlarged and inclined to the right side. Walls thin and very pale. Left side adherent to the pericardium, but easily torn. Upper lobe of left lung adherent to the chest all around, by firm bands of coagulated lymph. Left pleura contains a considerable quantity of a straw colored fluid. In the apex of the left lung is an abscess about the size of a lemon containing about two ounces of black and intensely fetid matter, the sphacelated pulmonary tissue. Walls of the abscess in a semi-gangrenous state,—the intensely fetid gas referred to in the notes was doubtless discharged by a small opening from the gangrenous cavity into a bronchial tube. The whole of the lung outside of the abscess in a state of red and gray hepatization. *Pleural cavity of right lung* contains about two ounces of a dirty pinkish serum,—lower margin of right lobe adherent to walls of the chest, more firmly posteriorly. Abdominal organs appear to be entirely free of any trace of morbid action.

J. W. K.

ART. XLII.—SURVEY OF THE PROGRESS OF DENTAL SURGERY.

Owing to absence since the July issue we have been unable to prepare our usual Record department for the subsequent numbers; in lieu of which we propose at this time a brief sketch, so far as memory serves, of the recent progress in Dental Surgery.

As to the *science* of our profession, abstractly considered, whether relating to physiological or pathological researches and deductions, the development of important facts or the propounding of prominent theories, it occurs to us that the results have not of late proved very prolific. Indeed we can think at present of no “new thing” of sufficient practical moment to claim attention in the present review, and nothing of spec-

ulative interest that could be presented in the limits which we here assign to ourself.

Neither have we much to offer relating to the *surgical* or *operative* branches in addition to what has been hitherto furnished from time to time in the Journal. One of the most prominent subjects that continues to engage the mind of the profession, relates to the method of treating dental caries, complicated with exposure of the dental pulp. The plan of drilling into the nerve cavity in such cases, proposed by Dr. Hullihen of Va., and also Dr. Miller of Mass., which was set forth in full in our 1st Volume, elicited much attention during the past year. It appears to have proved remarkably successful in the hands of most of those who have published the results of their experiments. Others however were not so successful, and latterly strong objections have been urged to this mode of treatment. There seems to be a more manifest tendency to fall back upon the older methods, viz: to "cap" the exposed nerve with a protecting shield previous to plugging, or, when not in a condition favorable to its preservation, to destroy it at once. The conditions favorable to success in the operation of perforating the fang to the nerve cavity, are so infrequent, and the danger of inflicting injury upon the nerve, resulting in its loss, so imminent, while the favorable cases seem to hold out so fair a prospect of success for the preservation of the nerve by other means, that many have been reluctant to resort to the new operation: hence it has probably not met with as much attention in practice as its merits deserve.

A few months ago, Dr. Arthur concluded a series of articles, able and elaborate, in the Am. Jour. of Dental Science upon this subject of treating exposed dental nerves, wherein he recommends the endeavor to save such nerves in all cases when in a healthy condition or before active inflammation has set in. In cases where the nerve is liable to be reached by a thorough excavation of the carious cavity, he does not attempt this, but allows a portion of the softened dentine to remain in the bottom, regarding it the most natural capping for the nerve; being careful however to remove it entirely from the sides and margins of the cavity. He conceives the process of caries to be kept up by acidifying agencies from without, contending

that if moisture and air be effectually excluded the decay will be arrested. Similar views have been subsequently advanced by others. It is recommended previous to filling the cavities, that they be well cleansed with an alkaline solution, as carbonate of soda, in order to neutralize the acid particles permeating the decomposing dentine that may be left. Conflicting as it does with the hitherto received opinion, and giving countenance, as it may, to imperfect operations in the hands of the ignorant and unprincipled, it is not surprising that this doctrine should startle the profession and meet with strong opposition. It will be seen to involve an essential modification of the theory of dentinal decay which generally obtains. It will be recollected that Prof. Harris, who is high authority in the profession, in an able article a few years ago on the treatment of exposed dental nerves, strictly enjoined the removal of every particle of diseased dentine even to the complete exposure of the nerve,—which is then capped by a thin plate of gold, or, as Dr. H. preferred, by arching the gold foil over it in the process of filling.

As a capping, preference is now given to non-conducting substances, such as asbestos, gutta percha, goose quill, or horn etc., each of which has in turn employed the “goose quill,” and we may say the “horn,” to herald forth its special claims. The great object is to get a non-conductor that can be used with facility and adapted to the bottom of the cavity. In an article in his last Journal, Dr. Harris informs us that he now employs for the purpose “Hill’s stopping”—a preparation of gutta percha,—believing it to combine the most essential requisites.

When desirable to destroy a nerve, if in a molar tooth, arsenic in some form is now pretty universally conceded to be the best agent, but for the branchless nerves of front teeth the probe, stylet or “nerve extractor” is used; some recommend an instrument in all cases, notwithstanding the difficulty, pain and frequent uncertainty of the operation when the bifurcating pulps of molar teeth are dealt with. The nerve being destroyed, all concede the advantage of thoroughly cleansing the nerve-canals and filling them securely to the apices with gold.

For obtunding the sensibility of the dentine in a cavity of

decay, arsenous acid, formerly used to some extent, is now discountenanced, being attended with danger to the nerve-pulp, the solution appearing to penetrate through the tooth substance. But cobalt has been recommended and used by eminent practitioners as devoid of danger, although its virtue depends on the arsenic it contains, this being confined in its operation in consequence of its combination with the cobalt. We have employed with advantage, and therefore proposed to others, metallic arsenic in fine powder, applying it on wax, acting as it does in this form only on the surface of dentine at the point of contact. Dr. Harris, in the paper last referred to, recommends the chloride of zinc as answering every purpose, although it frequently requires repeated application and is somewhat painful. To check denudation or superficial decay, nitrate of silver has been recently strongly advocated. But this and caustic potash, are, according to our apprehension, old remedies for the purpose.

Much is being written at the present about the article called "sponge gold," or "gold crystal" proposed as a material for filling teeth, in regard to which we gave in our July No. the opinion of several writers. There seems to be two forms of this article, owing probably to the different modes of preparation. The sponge gold, as we should characterize that for instance manufactured by White of Utica, is in the form of a brown pulverable, adherent powder, with very little of the appearance of gold until packed and burnished, when it presents the aspect of solid gold. The first specimen we received of this we were much pleased with. The second lot we do not like so well; indeed it is quite inferior in its appearance and working. It has the aspect of chocolate, crumbles easily, is troublesome in packing and extremely difficult to weld into a solid plug. The other form is that prepared by Taft & Watt of Xenia, Ohio. This may be at once recognized as gold crystal.—Though browner than foil it bears the aspect of gold before compacted. It appears to consist of a mesh of crystalized particles of gold interwoven and cohering together with considerable tenacity. We prefer it in the main to the best quality of "sponge gold," that we have used, while it is in every respect superior to the second lot just mentioned. We doubt not both.

articles will prove serviceable in dental practice for certain cases, and are of opinion that this form of gold will in time be so perfected as to come into general use.

Mechanical Dentistry appears to elicit the greater share of attention from the profession. For inserting pivot teeth, a late writer for the Dental News Letter recommends platina pivots, soldering them to the artificial teeth with jewelers "soft enamel," which he says forms a strong durable cement. Others propose the use of gutta-percha as a means of retaining the pivot and filling up the interstices between the bases of the artificial tooth and natural fang.

As a base for mounting artificial teeth in place of gold plate, "block tin" has had its day, but more recently gutta percha vulcanized, "galvanized," *dentalized*, has an advocate,—a "patent" obtained of course. We learned in New York, that a brief trial of it in that city proves it inadequate to the purpose,—soon tarnishing and becoming tainted from absorption of the secretions of the mouth. It would seem that this "gutta percha" is getting a pretty wide range in our profession—becoming omnipresent. Having been introduced into the threshold it bids fair to haunt every department.

The principle improvement in the preparation of artificial dentures, if not the only one that promises any substantial advantage, is that proposed by Dr. W. H. Hunter, and Dr. J. Allen, both of Cincinnati,—patented by the latter—consisting of a silicious cement capable of fusion, under a strong heat, so as to adhere to the bases of the artificial teeth and to the metallic (usually platina) plate, thus closing up the interstices between the former and the latter, and forming a "continuous gum" similar to that exhibited by a segment of block-teeth. The appearance of this style of work is very beautiful. Its great advantage consists in the entire exclusion of foreign particles, or secretions of the mouth, from ingress at the point of union of the artificial teeth and the plate upon which they are mounted. The objections urged to this kind of work are; the great bulk and weight of the artificial set in consequence of the amount of cement necessary to ensure the requisite strength—a very serious objection in most cases of upper dentures, but more frequently an advantage in lower ones;—the

liability of the gum to crack from springing of the plate under the force of mastication; and that such injury cannot be repaired without endangering the set. The dissideratum with this improvement would appear to be, to produce a greater degree of strength with a less quantity of material, and this seems difficult to obtain.

"So slow
The growth of what is excellent; so hard
T' attain perfection in this nether world."

To accompany this improvement, Messrs. Jones, White and McCurdy of Philadelphia manufacture a style of artificial teeth which approach perfection about as nearly as any thing we have seen. The beauty of form, the life-like hue, the natural curvature of the lingual surface, and the prolongation representing fangs, slightly serrated for better adhesion to the cement in which they are to be imbedded, are all admirable.

A new mode of supplying artificial teeth has just been patented, being a sort of extended block-work, consisting in making a denture entirely of porcelain, in a single piece, without any metallic plates. The material is moulded so as to fit the alveolar ridge and gums before baking. Its "advantages" are eulogized by the patentee as calculated to "revolutionize" this branch of the dental art.

In the manufacture of artificial teeth great advances are continually making. Too much praise cannot be accorded for the zeal and discrimination of artists engaged in this department. Many substantial improvements are also manifested in the invention and adaptation of instruments and fixtures, surgical and mechanical, but it was not our design, neither would our limits permit, to particularize in these respects.

W.

ART. XLIII.—MUSCULAR CONTRACTION.

DRS. EDITORS: In the September number of the Journal, I find a review by Dr. C. H. Cleaveland, of Cincinnati, of my article upon Muscular Contraction, published in the July number.

The Doctor does not seem to question the justness of my

conclusions ; it is only my claim to originality that he doubts.

If my speculations are true, (and truth is my aim,) it matters but little with me whether I was the first to enter this broad field of philosophic enquiry or not.

Though my previous article began with some rather bold prefatory remarks, I was then of the opinion that they were just, nor has Dr. Cleaveland's strictures as yet changed my notions.


As regards the Doctor's article of November, 1853, published in the N. Y. Scalpel, I have not been so fortunate as to see it ; and if I had, my article, though not published until July last, was prepared in the latter part of 1851, and was left in January, 1852, in the book store of Messrs. Lindsay & Blakiston, for the "Medical Examiner." It, however, never appeared in that journal—the cause I cannot tell. Last spring it was re-written and sent to you.

Dr. Cleaveland's article on Galvanism, was, no doubt, a learned physiological paper. The extract from it in the Journal bears sufficient evidence of this fact. As a philosophical production, it is far in advance of what we find in most physiological works upon this subject ; yet, unless, in some other portion the Doctor's paper is more definite, than in that cited in the Journal, he has left the *modus operandi* of the phenomenon of Muscular Contraction shrouded in all the uncertainty and mystery which obscures the ideas of most writers on this subject.

After detailing a very nice experiment with small iron pins stuck through a gum-elastic ribbon, and thereby magnetizing one of the pins it attracts the others, and thereby breaking the galvanic circle, these pins again separate, Dr. Cleaveland sums up his conclusions in this very indefinite sentence : "*So it is with the muscles of the animal economy.*" Without any disposition to underrate the Doctor's paper, (for as I have already said, I believe it to have been a learned article,) I would ask, where does he place his *magnetized pins* in the muscular tissue ? I confess I am not able, from the extracts found in the Journal, to locate them.

The Doctor, after detailing his beautiful experiment, stops short ; only proving by it, that electricity is the motive force in

muscular contraction. This is now a generally conceded fact, though there are yet a few authors of respectability who labor to prove that the *vis nervosa* and *electricity* are dissimilar, and I think if the Doctor will again consult the authorities which he enumerated as having anticipated himself and me in explaining the phenomena of muscular contraction, he will find some of them stating as a fact, *that a nerve cord if tightly ligated is still a conductor of electricity, but that it is no longer a conductor of the nerve force*, hence they infer that these, that is the *vis nervosa* and *electricity*, must be different motive principles.

If Dr. Cleaveland or any other reader of my article is of the opinion that I claim to be the first who set forth the idea that *electricity* is the motive force in muscular contraction, he is mistaken. The only novel suggestion that I offered is *that each muscular granule is a muscular magnet, and that the electricity developed in the various nervous centres, is conducted by the efferent nerves to these granules, by which electric spark or current they, the granules, are rendered magnetic, and that the like poles of all these magnets look in the same direction thus*  *the black ends being positive and the white negative. By this arrangement a positive and a negative pole are constantly pointing directly at each other throughout the entire series. The mutual attraction existing between these opposite electrified poles causes them to approach each other, and when they come into contact their electric tension is neutralized and repulsion follows. That was contraction, this relaxation.*

That the mechanism of muscular motion must of necessity involve some such process as this, I think a self-evident fact, for if the muscle as a *whole*, be subjected to any force, the muscle as a *whole* could only be affected; but to produce changes in the relation of the *parts* of the same muscle we must act on these *parts* separately. These separate parts upon which an electric force is spent during contraction are very small, and it is more likely that it is these muscular granules than larger segments of fibre.

By a reference to my former article, it will be seen that I agree with most modern physiologists as regards the physical forces concerned in producing animal motion. My manner of applying these forces to the living machine is the point of dif-

ference, and though I did not say it in so many words in my former paper, *that life involves no special forces*, I now declare it, as my honest conviction, that such is the fact, and that man who would explain vital phenomena by referring them to special forces, hardly deserves the name of a philosopher. If any gentleman can prove my conclusions erroneous, I would take it as a favor from him to do so. I profess to be an enquirer after truth, and it matters little with me who discovers it.

T. M. JACKS.

HELENA, Ark., Oct. 9th, 1854.

ART. XLIV.—QUININE IN CHOLERA.

The Editor of this Journal, has, for years used quinine in connection with morphia, laudanum, brandy, &c., by both the mouth and rectum with satisfactory results in the treatment of cholera. It may be given as an injection and retained in many cases, if but a small quantity of liquid be used.

From Ranking's Abstract, (Jan. 1854,) the following notice of the treatment of cholera by quinine, &c., is taken:

The Editor of the Medical Times and Gazette observes, that the lesson we may learn from the experience of the past, is not to persevere in modes of treatment which have proved useless. He remarks: Of all the remedies used during the previous epidemics, with the exception perhaps of opium as a palliative in certain stages, quinine probably is most deserving of further trial. Modern experience in India is leading to increasing confidence in its powers. Towards the close of the epidemic of 1849, it was used in London. Mr. Spencer Wells injected a solution into the veins in four cases. Dr. Parkes did so in two others. He also injected the solution of salicine without any marked effect, besides alcohol, both in simple warm water and in saline solutions. The experiments were only made in desperate cases, and no recoveries followed, but the power and duration of the re-action which took place were very remarkable, and, as phlebitis only followed in one case, encouragement is afforded for a repetition of the trials in cases not so absolutely hopeless as those in which they were formerly made.—*Med. Times and Gaz.*, Oct. 8, 1853. *N. O. Med. and Surg. Journal.*

ART. XLV.—METEOROLOGICAL REGISTER FOR AUGUST 20-31 AND SEPTEMBER. KNOXVILLE, TENNESSEE.

Barometer.

Thermometer. Humidity.

	7 a. m.	2 p. m.	9 p. m.	mean.	max.	min.	mean.	7 a. m.	2 p. m.	9 p. m.	Prevailing winds.	Rain, inches.
AUGUST.												
20	29.16	29.12	29.12	29.136	87	66	77.5	78	62	91	N.E.	fog.
21	18	15	11	153	87	65	76	98	56	95	N.	
22	18	10	12	138	87	67	77	98	59	91	N.E.	fog.
23	16	12	14	145	88	67	77.5	94	60	93	E.	
24	20		13	112	90	71	80.5	91	58	91	E.	fog.
25	16	08	09	113	90	67	78.5	94	54	88	N.	
26	15	10	08	112	91	68	79.5	100	60	87	S.	fog.
27	15	07	10	108	87	71	79	88	61	72	S. & N.W.	Thunder
28	12	09	07	099	83	72	80	88	55	82	N.E.	at night.
29	13	09	09	107	89	70	79.5	88	58	73	N.	
30	13	13	09	139	85	71	78	82	67	82	N.	
31	17	09	12	181	86	65	75.5	100	54	76	E.	fog.
SEPTEMBER												
1	29.19	29.13	29.00	29.167	86	68	77	86	58	86	N.	
2	19	14	06	133	89	67	78	91	59	77	N.	fog.
3	14	11	06	107	93	68	80.5	86	55	73	N. & S.E.	
4	11	04	09	083	93	70	81.5	94	50	87	N.E. W.S.	fog.
5	12	07	05	085	93	70	81.5	91	49	73	S. & N.	fog.
6	10	04	02	068	95	71	83	91	52	85	N.	fog.
7	05	28.99	05	034	95	68	81.5	76	39	67	N.E.	
8	28.98	97	28.76	28.909	93	70	81.5	70	43	58	N.	
9	69	66	71	691	88	74	81	65	59	78	N.	
10	82	82	90	851	94	75	84.5	82	47	72	N.W.	
11	98	91	97	957	93	68	80.5	86	44	76	N.W. & S.	25 at 5 P. M.
12	29.03	29.02	29.05	29.036	94	68	81	88	63	95	N.W. & S.	
13	10	05	10	089	85	69	77	91	64	80	N. & W.	fog.
14	14	05	07	090	83	68	75.5	81	51	83	N.	
15	10	04	11	085	85	70	77.5	94	48	67	S.E. N.E. N.W.	
16	18	11	18	188	85	68	76.5	80	51	53	N.	
17	28	35	23	292	84	61	72.5	86	48	66	N.	
18	39		18	259	81	61	71	78		70	N.E.	
19	15	09	08	091	72	64	68	84	74	94	N.E. & S.W.	16 11 A. M.
20	05	02	10	060	73	66	69.5	90	56	53	W.	10 12 M.
21	15		28	220	75	60	67.5	68		94	N.	
22	41	33	35	364	88	53	70.5	91	45	75	N.E.	fog.
23	40	29	21	303	78	54	66	90	60	84	N.W.	
24	17	07	04	096	73	60	66.5	98	84	94	E. & W.	83 at night.
25	03	01	01	019	75	60	67.5	98	79	96	S.	fog.
26	00	00	01	008	77	66	71.5	94	51	94	N.	fog.
27	05	23.99	06	037	81	69	75	94	60	94	S.	
28	09	29.04	08	079	83	65	74	98	60	94	N.	24 at night.
29	16	13	17	156	85	63	74	98	57	84	N.E.	
30	27	23	23	248	78	70	74	89	50	72	N. & S.	
Monthly average.	29.121	29.065	29.078	29.093	84.9	66.1	75.5					1.58

FOR SEPTEMBER—

Maximum Barometer,.....29.41 on 22d day.

Minimum ".....28.66 " 9th "

Range,.....75

Monthly mean,.....29.093

Maximum Thermometer,.....95 on 6th & 7th days.

Minimum ".....53 on 22d day.

Range,.....42 degrees.

Monthly average,.....75 "

Least humidity in a cubic foot of air,.....39 parts in a hundred on 7th day.

Amount of rain for September,.....1.58 inches.

FOR AUGUST—

Monthly mean of Barometer,.....29.082

" " Thermometer,.....76 degrees.

Amount of rain for August,.....3.80 inches.

For the greater portion of the foregoing table, I am indebted to the very accurate observations kept by President Cooke of E. T. University, by means of the fine instruments placed in his charge by the Secretary of the Smithsonian Institution. On comparing them with my own, especially with reference to the Thermometrical changes and the relative humidity, I find that although the observations were made nearly a mile apart, yet they accord in the main variations. The Barometrical observations are corrected according to the attached thermometer, for which I am under obligations to President Cooke.

RICHARD O. CURREY,

Knoxville, Tenn.

RECORD OF THE MEDICAL SCIENCES.

- 1.—*Opium in Fevers and Inflammations*.—Read before the Æsculapian Medical Society, by H. R. PAYNE, M. D., Marshal, Ill., May 31st, 1854.

It is not my design on this occasion, to attempt to present all of the indications for the use of this valuable medicine, as we possess no agent the uses of which, on many points, are so generally settled in the minds of the Profession.

My object will be attained, if I present in a clear and satisfactory manner, some of the more recent views held by some of our most eminent men; with the addition of my own reflections, which I have formed from a limited experience.

In the Profession of Medicine, as well as in the attainment of other knowledge, we should not be too hasty in condemning recent views, for such always retards the progress of science; on the other hand, we can expect to make but little advance in elevating the standard of our profession, if we too readily acquiesce in the views of others. But, as our desire should be truth, and the good of our fellow-men, we should carefully and candidly observe and investigate for ourselves, before we come to any settled conclusion.

In the study of this subject I hope I have no other object in view, and as my own investigations are far from being thorough, I shall expect to be generously indulged by the members of this Society.

Opium, as I have before said, is a remedy, the uses of which in many respects, is settled in the minds of the Profession. Centuries ago its virtues were acknowledged, and it may be almost traced to the days of Hippocrates himself. It is now perhaps more extensively used than any one agent we possess, as there is scarcely any disease in which at one stage or another of its progress it is not indicated. Let us then examine some of the indications that give rise to its use: 1st, its primary operation is that of a stimulant; 2, it is sedative; 3d, anti-spasmodic; 4th, diaphoretic; 5th, promotes rest; 6th, relieves pain; and 7th, as recent investigations go to show, controls inflammatory action.

For example, what stimulant is better adapted for those low forms of Nervous or Typhoid Fever, where the vital forces are weakened, and the patient sinking from an exhausting Diarrhœa, as small and repeated portions of Opium?

Or what remedy so surely assuages the pangs of parting life, in the last stage of Pulmonary Consumption, when the patient is so harassed with the Cough, Expectoration and Diarrhœa?

What remedy shows its anti-spasmodic propensities in Spasmodic Colic so fully, as large portions of Opium?

Or what remedy is more extensively used and possesses greater virtues in that great disease Puerperal Fever, than Opium?

Dr. Armstrong, a sound practical teacher and writer, was a great advocate for the use of Opium in this disease; he gave it in all cases in which the local pain, and constitutional disturbance were prominent. But it is unnecessary for me to multiply examples in which its powers are acknowledged; these are familiar to you all.

My object, as before stated, is to present it in that light, in which recent investigations have gone far to prove it should stand.

I am not, however, one of those that would advocate its indiscriminate use, or so wild and imaginative as to sustain it when my own judgment has not tried and approved of the remedy—but, that it deserves a higher place in the list of remedial agents, in certain forms of disease, I believe.

In the treatment of Typhus and Typhoid Fevers as a curative agent, its claims are strongly argued. Perhaps there is no one more strongly advocates its claims in these forms of Fever than Prof. Austin Flint, of the University of Louisville, and formerly of Buffalo, who has tested its efficacy in these, as well as in other diseases, and in whose sound judgment and extensive practical information, is to be placed great reliance. He uses it early and in large portions in what he

calls the Abortive Treatment, and frequently with the effect of putting an end to the disease.

If it fails in this he does not suspend its use, but gives it when the symptoms of Coma Vigilance make their appearance.

He does not stop here, but uses it in those grave cases attended with violent Delirium, combined with Tart. Ant. et Potassæ, as he considers that in the most of these cases there is no inflammatory tendency.

Dr. Henry, of Springfield, Illinois, speaks in strong terms of the use of opium in large portions, in continued Fevers; he, as Dr. Flint, does not use it to the exclusion of other remedies, but considers them as auxiliaries, and opium as the "Sheet anchor." He takes the same view of the subject as Dr. Flint, he says, "In our Typhoid forms of Fever, I believe the affection of the brain is most generally the result of diminished power, and is only to be relieved by sedative and stimulant remedies. It may be that it is on this principle, that a large dose of opium and quinine so generally relieves the tendency to Coma and even Coma itself in this type of Fever." It must not, however, be supposed that, because both of these able men advocate the claims of opium in Coma vigilance, and even in true Coma itself that they favor its use in true Cerebral affections, when actual Inflammation exist, as they consider it in such cases contra indicated.

In speaking of the virtue of opium in continued fevers, Dr. Henry observes, "I regard the use of opium when given in the way I propose, that is, combined with calomel and in large doses, as the most safe and efficient remedy, in all forms of continued fever, to be found in the whole list of our remedial agents." He then gives the difference of Treatment in what he calls the Mercurial, when Mercury is made the basis, (the plan he formerly pursued;) And the opiate course as the result of this test, he says: "In the cases treated on the Mercurial plan, I find that the average number of days attendance was about eight, and the mortality one in twenty-seven. Under the opium plan of treatment, the average number of days attendance has been about four, and the mortality not one in ninety." Here is a vast difference in the result, and how is it to be accounted for, if not on account of the superior efficacy of opium? It certainly was not because the diseases were milder, as he states; it includes "all the forms of Fever from the mildest Bilious remittents, to the most malignant forms of Conjestive and Typhus.

In cases of Inflammation, the claims of opium are strongly urged. Formerly the opinion was maintained, and still is, by many Physicians that its use is contra-indicated in such

cases, particularly when of a high grade. This view of the subject at first sight is rational, as it is well known that opium given in small portions operates directly as a stimulant, and when given in such quantities, would necessarily increase the fever, as well as the Local Inflammation; but this view does not destroy the proposition that opium is not an Antiphlogistic, on the contrary experience has shown, that when given in large portions it operates reversely to that given in smaller portions, producing copious diaphoresis, with a reduction in the action of the fever. Dr. Stokes, in his valuable *Practice of Medicine*, gives his testimony in its favor; he says, "some time since I made a series of Clinical experiments, with the view of ascertaining the power which opium possessed in relieving Inflammation, and the result has been that in many cases where the powers of life are so low that we cannot have recourse to the lancet, or any kind of depletory measures, opium alone furnishes us with a powerful means of subduing inflammatory action." Again, it is a fact, and stated upon the authority of Dr. Henry, in one of his propositions, that a large dose of opium produces less constipation of the bowels than a smaller dose. Here then we see the necessity of modifying the remedy in different diseases, or in different stage of the same disease, as a large portion has a far different action from the smaller, producing relaxation, instead of constriction. If then, large doses of opium are relaxing, and diaphoretic, why are they not applicable in many cases of Inflammation, even of the most Sthenic grade, particularly after due depletion.

With many Physicians, this may conflict with favorite views of the Pathology of Inflammation. With me such speculations are of little moment. Whether Cullen was right in believing that spasm of the extreme vessels be the proximate cause of Inflammation, on that of Dr. Philip who supposed it to be the result of "Debility" of the capillaries incapacitating them for the transmission of the blood, or the theory of John Hunter, who believed it to be the result of increased "vital activity," is in the present state of our knowledge unsettled; they are questions that probably never will be definitely settled, and even if they were, would be of but little practical utility as they refer to mere local action, without any reference to the increased action of the Heart, and larger vessels, or to the altered constituents of the blood.

But as time will not further allow the consideration of Inflammation in general, we come now to its applicability in Individual Diseases. In the Treatment of Pneumonia, the attention of the Profession has been recently called to the powers of opium as a curative agent. And here I may say,

that there is probably no Disease in which more opposition has been arrayed against its use than in Pneumonia, but this opposition has been based upon purely theoretical grounds, and from incorrect views of the operation of the remedy. If Physicians were to discard much of their theory, or at least make it of secondary consideration and confine themselves to a more thorough and systematic investigation of certain remedies to their cure, there would certainly be less confusion in the profession. My object then is to present the recorded testimony of eminent and experienced men who speak strongly in its favor.

By a reference to the *N. W. Med. and Surg. Journal*, I find that Prof. Herrick is one of its supporters. He uses it in large and repeated portions in pneumonia, in connexion with quinine. Hear what he says: "The almost uniform success of this treatment in our practice for several years, has been such, that we can now recommend it to our readers with confidence." He then accompanies this with the history of several cases, showing his mode of treatment, that rapidly recovered under its use. In the November number of the same Journal for 1852, the same author says of opium in pneumonia, "that given in full doses, by which we mean from 3 to 6 grains, repeated from every 4 to 8 hours, it not only modifies the respiratory and circulatory movements, but acts upon the excretory organs, as the skin, kidneys, etc." He follows this with a case of pleurisy, complicating pneumonia, in which this remedy was given, and in two days from the commencement of its exhibition, the case was convalescent; such evidence emanating from such a man as Prof. Herrick, is entitled to much weight. Prof. Austin Flint, to whom I have already alluded, I find by reference to my book of notes, speaks highly of the use of opium combined with Dover or some other diaphoretic in pneumonia. I am inclined to the belief myself, that in most cases of inflammation of a high sthenic grade, opium is best administered in combination with ipecac or tart. of antimony, as we thus secure its diaphoretic effects without the necessity of giving it in such large quantities, believing, as Dr. Henry, that "its good effects are attributable to its powers of sedation, but mainly to its diaphoretic properties."

Dr. Chas. L. Duncan, of this place, and a member of this society, informs me that he has made opium the basis of treatment in pneumonia, for several years past. He has kindly furnished me with the following case:

"Was called upon one evening to see a child of Mr. B., age 8 years. Symptoms were high fever, hurried breathing, pain in the right side, flushed face, tongue furred, considera-

ble cough, with but little expectoration. As the bowels were bound, ordered an emeto-cathartic of cal. ipecac.

Second day visited the case and found but little improvement, although the cathartic had operated well. Gave opium gr. 1, and ipecac gr. $\frac{1}{2}$ in powders, to be given at intervals of two hours through the day. Saw the case in the evening with but little alteration; ordered the same to be continued.

Third morning there was great improvement; there was but little fever, the difficulty of breathing was relieved, no pain in the side; the medicine was gradually withdrawn, and the patient made a rapid recovery."

In this case the disease was certainly arrested before it had progressed to the second stage.

In peritonitis, according to the experience of some, opium in large doses, is especially applicable, although at variance with the well settled opinion of the most of the profession. Prof. Austin Flint is one of the advocates of the remedy. By a reference to my book of notes, taken from him whilst lecturing upon this disease, in speaking of the use of cathartics, he makes use of the emphatic language that they are "positively injurious, that they prove pernicious by increasing the peristaltic motion of the bowels, and that the indication is to keep them quiet, and as far as possible to control inflammatory action, and that this cannot be accomplished in any better way than by large and repeated portions of opium." Is not this mode of reasoning rational? For myself, although I have not fully tested its virtues in this disease, I am convinced in reason of its correctness. The same author remarks, that under this treatment, "although the disease is grave in its character, that there is no one of equal gravity so under the control of medicine."

In that fatal disease, puerperal fever or puerperal peritonitis, when of the sthenic grade, Dr. Henry Miller, Prof. of Obstetrics in the University of Louisville, employs opium freely, after depletion of blood letting, but considers purgations out of the question, as worse than useless.

In the asthenic variety of the same disease, he makes use of the strong assertion, based upon the experience of years, that it is not called for, nor will it bear the loss of blood or depletion of any kind;" but that opium should be used liberally as affording the only chance of safety.

Dr. Clark, of New York, has pushed this remedy to a greater extent probably, than any man of his day. I cannot do any better than transcribe one of the cases, taken from a lecture of Dr. Clark's, by Edward Cook, M.D., in his Inaugural Dissertation, and published in the Western Journal of Medicine.

"First Case—first day—announced by a chill, pulse 120, skin hot, tongue clean, respiration thoracic, abdomen tympanitic. Dr. Smith, of Bellevue, gave, according to Dr. C.'s instructions, ten minims of Magendie's solution of sulphate of morphia.

Second day—Pulse 120, skin hot, tongue not quite so clean, respiration thoracic, abdomen more tympanitic, vomiting of a greenish stuff like bile. One grain of sulph. morphia every hour: pulse slightly reduced.

Third day—Symptoms of second day still continuing; 1½ gr. of morphia every hour, slight narcotism induced, pulse fell to 90, the respiration to 7, vomiting continued, but the greenish color disappeared so soon as narcotism came on; 3 grains of opium are now ordered every hour. The effects were deeper narcotism, disappearance of the tympanitis and tenderness, fall of the respiration to 5, vomiting still persistent.

Fourth day—Diminished doses of opium, 1 gr. every two hours, continued for four days, surface moist, tongue slightly furred, no tenderness, no tympanitis. After the eighth day a dose of oil was given. The lochia were checked before the attack, at its commencement the milk secretion. For the first four days the patient averaged 4 grs. of opium every hour."

In a second case where the symptoms were still more unfavorable, it was used in still greater quantities. Dr. Cook adds, "These were both cases of puerperal peritonitis; the second inordinately severe and unfavorable; both were treated by opium alone: both terminated well.

It will be seen that Dr. Clark does not give opium by quantity, but for effect, and the report of his cases show, that he has met with better success in its treatment, than any other man whose experience is on record.

Of the superior efficacy of opium in dysentery the profession are daily becoming more united; but it still has, as in the days of Sydenham, its opponents. That great and good man, acknowledged to be the most illustrious of his day, as a close and accurate observer of the operations of nature, notwithstanding the theory of that time was in opposition to its use, regarded it, as did his successor, Dr. Armstrong, who considered it of indispensable value.

Prof. Austin Flint, to whom I have made frequent mention in these pages, sustains its use in dysentery as in some other forms of inflammation. He uses it in both the sporadic and epidemic forms of the disease. His treatment is not exclusive, in the first place he unloads the bowels with castor oil, or some of the saline cathartics, and follows this with free and repeated portions of opium, and continues its use for several days if necessary, at which time if the Dysenteric discharges

still continue, he again opens the bowels with an aperient, and immediately upon its action resumes its use

It would be doing injustice to the high reputation of Professor Flint, or in fact any of the advocates for the use of opium, to say that they have adopted a routine course, or did not adapt their treatment to the various modifications of the disease, or the circumstances of each individual case.

Would they, if it gave evidence of a decided Inflammatory character, refrain from the benefit to be derived from blood-letting? Or would they in Epidemic Dysentery, where a powerful depressing agent was at work, making the disease of a decided adynamic character, withhold the use of nourishing and sustaining remedies?

Or when the disease partakes of the Intermitting form, withhold the use of Quinine? And even in cases where there was strong presumption that the liver was at fault, withhold the use of Calomel? I can speak myself; certainly not. But that opium should be the leading remedy I believe, as it *relieves pain, quiets the bowels*, and controls *Inflammatory action*, which I conceive to be the great indications in its treatment. The learned author referred to above in speaking of the use of cathartics in this disease, as in peritonitis, says "that they must occasionally be used, but that their direct operation is bad." Mercury he considers in many cases does harm, that its good effects as an Antiphlogistic does not compensate for the injurious effect it has upon the Inflamed mucous membrane. That it has a specific action upon the liver there are but few that will deny, and it is for this that many advocate its use in Dysentery, believing that the liver is at fault; but such I in candor believe to be in error. Such individuals object to the use of opium on the ground that it increases the Inflammation as well as stops the secretion of bile. That the first is not the case we have the testimony of many eminent men, such as Stokes, Cheyne, Watson, Williams, and of our own county, Flint, Clark, Herrick and many others. That the last is true I have seen from my own experience. But to increase this effect, it should be given in large portions. Dr. Armstrong, years ago said "that wherever opium is given in any abdominal Inflammation the dose 'should be large, for a small dose often stimulates, whereas a large one is directly sedative.'"

That the action of cathartics impair the power of opium I have frequently observed. Dr. Henry thinks the bowels should be kept quiet some 36 hours before giving a purgative. He says that if given too soon "you are almost certain to reproduce the disease, and involve the necessity of commencing anew with your treatment."

I have in my possession the journals containing the experience of men living in different parts of our country, who have had extensive experience in this disease, who speak in unqualified terms of the power of opium. To instance, in the *Southern Med. and Surg. Journal*, is some remarks on the treatment of Dysentery, by E. F. Starr, M. D. He says "But to come directly to the question—What is the remedy for this disease? I answer emphatically opium. This should be considered the leading remedy in its treatment. The chief properties of opium are to relieve pain, produce somnolency, and cure Inf. of the mucous membranes, and I may add of most of the other tissues."

In the November No. of the *North West Med. & Surg. Journal* for 1852, is an abstract of some remarks made by A. B. Palmer, before the Cook County Medical Society, in which he says "Opium is an indispensable agent in the correct treatment of Dysentery, and should be used from the beginning to the end of the disease, much of the time in connexion with other means, he depends upon it to allay pain, procure rest, cause diaphoresis, and by a direct action which opium is capable of, to subdue Inflammation. He gives from 2 to 4 grains, sufficient to produce a decided Anodyne influence."

It may be said that I am too warm in my attachments to opium, but I would not advocate its claims so strongly were it not based upon the judgment and experience of many of our ablest men, and this again strengthened by my own experience. I have tested its virtues perhaps more thoroughly in Dysentery, than in any other disease, and am satisfied in my own mind, that it possesses greater curative powers, than any one agent we possess; and although I should not like to be restricted to any one remedy, in any given disease, still if I had to make my selection, in this disease, I should without hesitation select opium.

I have not been long in this belief, as I formerly entertained the same view in common with most physicians that the disease was secondary, and that to give opium without being combined with Calomel, to keep up the secretions, and a constant excitement of the liver, would be a grievous error, and one quite unpardonable, and it was not until I noticed the ill success of others, and experienced it myself, that I was satisfied of its inefficiency. It is true, however, whilst we advocate its superior claims, we cannot claim for it the merit of curing every case, for it is well known to every intelligent Physician, that in many cases the powers of life are so overwhelmed by the shock of the disease, and the tendency to fatality so great that no human cause however potent, has been found sufficient to prevent a fatal issue.

Such was the nature of the Epidemic that visited this town and vicinity the last summer. Most of the cases were of a malignant Typhoid type, attacking infants and children under 2 years of age, cases that could not tolerate the remedy as those more advanced in years.

But there were cases in which it was well tested and with the most happy effects, and to illustrate the course I pursued and the nature of the disease, I cannot do better than report one of them.

Case 1. Patient 8 years of age. Was called to see this case the evening of the 2nd day after the Disease had been fully formed. I learned from the family that it was preceded by a Diarrhœa with some intermixture of blood several days previous to the Dysenteric symptoms. The patient had been given medicine but followed by no relief. Symptoms at this time were, Pulse frequent and feeble, timed by the watch 130 per minute, great tenesmus and pain in the bowels. Dejections, at times copious, at other times none, and as often as every 5 or 10 minutes. Tongue was of a dark brown appearance in the centre and red around the edges. Patient had frequent sinking spells. There was considerable gastric irritation, a deep red spot was on each cheek, a purple appearance of the eyes. The expression of the countenance was dull and languid, abdomen was tumid, and the temperature of the skin below the natural standard. I gave the opiate pill grs. $2\frac{1}{2}$, and followed in two hours with powders composed of Sulphate Morphine grs. 4, pulveris doverii grs. 3, Acet Lead grs. 3—and directed them to be used alternally every 2 hours, through the course of the night. I also ordered slippery elm water as a drink.

2d day—In the morning saw the case, was not so restless, rested better through the night, the dejections were not so frequent; in other respects, but little improved.

Ordered the same to be continued with the exception of acet. lead, which was withheld. Ordered hop poultice to the bowels, and more nourishing diet.

In the evening found the pulse some fuller, respiration some reduced. Discharge from the bowels still diminished in frequency and quantity. Patient had two or three feculent discharges through the day. Directed the pills and powders to be given at intervals of 3 hours.

3d morning—The dejections were more frequent with considerable pain, and an apparent aggravation of other symptoms.

Ordered the same medicine as in the first instance.

Returned in the evening, and found the patient more comfortable, pulse reduced to 120 per minute, and the respirations

much reduced, had some 3 or 4 feculent discharges, more or less mixed with bile. At this time the patient was troubled with a itching of the nose and face. Lessened the quantity of opium, with instruction to resume its use if necessary.

4th Morning—Patient had rested well through the night, tongue looks better, some nausea, breathing easier, much disposition to sleep—continued the remedy as above.

Evening returned and as there had been no feculent discharge, and but little blood, ordered an Aperient of Castor Oil with Spts. Terebinth. 10 drops, as the abdomen was still swollen, and directed them to resume the opium after the operation of medicine, every three or four hours if necessary.

5th Morning—Pulse about 100 full, Tongue cleaning, the Aperient had operated well, the pills were continued every 4 hours. In the evening the patient was troubled with severe tenesmus, which was relieved by laudanum and starch injections; from this the case gradually recovered. It will be observed that I gave no Aperient which I am in the habit of doing every 36 hours, deeming it in this case unnecessary, as with one exception, there had been feculent discharges each day. I had intended to have reported another case not so decidedly asthenic, treated with slight variations from this one, but as this essay is already longer than I intended, I forbear.—*From North Western Med. and Surg. Journal.*

2.—*On the Remedial and Anæsthetic uses of Intense Cold.* By JAMES ABBOTT, M. D., LONDON.

Although the subjects of the remedial efficacy of congelation and local anæsthesia from cold have been for some years before the public, they are as yet but little understood and appreciated. This has resulted, partly from their having been imperfectly explained, in consequence of the publications respecting them being severally incomplete, and partly from the strength of the prejudice against extreme cold. Dr. Rowley, who, in his attack on cowpox, declared that the accounts which he had heard of the terrible effects of communicating the "cruel and beastly" disease were enough to "freeze the soul," was probably not more horror-stricken than some have been by the proposal to freeze the body; and the introducer of vaccination was hardly more abused than the proposer of congelation has been. It is in the hope that this prejudice may be thereby abated, and the subject rendered better understood, that the following brief statement is published. Even in France, where both the remedial and anæsthetic uses of intense cold have been turned to account for some time by M. Velpeau and other leading practitioners, there is still much doubt about the best mode of applying the agent. In a paper

in the *Bulletin de Therapeutique*, of the 15th ult., M. Richet, Surgeon of the Hospital Saint-Antoine in Paris, reports thirteen operations in which local anæsthesia had been produced by the very imperfect means of the quick evaporation of ether.

As no remedy has been longer in use, and few are more valued than the local application of moderate degrees of cold, or a temperature ranging from that of dissolving ice to about 70 deg. of Fahrenheit, it may at first appear singular, that a greater or more powerful remedial effect should not have been sought by increasing the dose of the agent, or employing a lower temperature, in the same manner as we have sought and found much greater remedial benefit in many cases by using mercury, antimony, quinine, and other drugs, in larger doses than had been customary. The reason is that medical men were under a most erroneous impression respecting the effects of very low temperatures on the body. Because a temperature of zero stops the circulation, and because the vitality of a part has been lost by its *long-continued* congelation, whether caused by exposure to severe cold in winter, or by the incautious use of ice in hernia and other diseases, it was hastily and erroneously inferred that there was danger of loss of vitality from *short-continued* congelation. The mistake would not be greater to infer from the fact, because a long-continued stoppage of the circulation through a limb from an improper application of a bandage has occasioned gangrene, that it would be dangerous to use the tourniquet in operations.

The correction of this error will be deemed of no little importance when it is considered that in short-continued congelation, judiciously applied, we have an unfailing means of immediately arresting inflammation wherever it can be reached by the remedy; of not only giving speedy relief from pain in many diseases, but in consequence of the organic changes produced by it, of obviating the return of pain; and in malignant disease, of producing an amount of benefit much exceeding that yet accomplished by other means. Although much inferior in importance to these results, it is yet another great benefit conferred by intense cold, that the pain which would be otherwise caused by the greater number of surgical operations can be prevented by it with perfect safety; and not only can pain be prevented, but the inflammation proceeding from the surgeon's knife, that so often proves fatal, may also be obviated by the same means, and with almost equal certainty. It will be proper to consider the remedial and anæsthetic effects of intense cold separately; but before doing so, it is necessary to mention how this degree of cold is produced and applied, as well as to attempt an explanation of its mode of operation.

That degree of cold may be called intense which immediately benumbs the part to which it is applied, speedily stops the circulation through it, and congeals the adipose matter. I have usually produced these effects by placing what are termed frigorific mixture either immediately in contact with the skin or mucous membrane, by means of a net of thin gauze containing them, or by allowing them to act through thin bladders, or metallic vessels of appropriate form; but there are various other ways of effecting the same object, some of which are preferable for certain purposes. Substances passing rapidly from the solid to the fluid, or from the fluid to the æriform state, strongly abstract caloric from other bodies in contact with them; and substances, either solid, fluid or æriform, already sufficiently cooled by artificial means, may be placed in contact with the part: the first, as solid metallic balls of appropriate shape; the latter two, when forming strong currents. When cold is produced by the common frigorific mixture of ice and salt, and applied by means of a gauze bag or net, the following is a convenient mode of proceeding:—If the congelation is not to be extensive or long-continued, a piece of ice of the size of a large orange will be sufficient. This is well pounded in a coarse cloth or bag, and the powder being placed upon a large sheet of paper, is thoroughly mixed, by means of a paper-folder, with about half its weight of common salt. The mixture is then put into a net of about four inches diameter, and as soon as it begins to dissolve, it is ready to be applied. The net is not kept motionless on the part, but is frequently raised in order that fresh particles of the mixture may be brought in contact with the skin; and the water that escapes from it may be absorbed by a sponge, or allowed to fall into a basin placed underneath. If the surface to be acted upon is of small extent, a very thin and large copper spoon containing the mixture, or a solid brass ball of about a pound weight, which has been immersed in ice and salt, will often answer, and be a neater mode than the net.

The moment a gauze net, or a thin metallic vessel containing ice and salt, is applied to the skin, it is benumbed. There is hardly a sensation of cold produced, and no tingling or smarting. If the contact of the frigorific be continued a few seconds longer, the surface becomes suddenly white, in consequence, doubtless, of the arrest of the circulation; and this change of color is attended with a slight smarting like that produced by mustard. There is now complete anæsthesia, which, if the frigorific were removed, would remain complete for several minutes. But if the frigorific be allowed to act, another change is produced—the adipose matter under the skin is congealed, and the part becomes hard as well as white. The depth to which

the benumbing influence of cold will extend depends upon a variety of circumstances, as the degree of cold, the duration of the application, the vascularity of the part, whether pressure is used or the circulation is suspended, &c. &c. After the usual application of cold for anæsthesia, the circulation soon returns to the part, and the skin assumes a red color which lasts for several hours. If the congelation has been considerable, there is now some smarting felt, unless the natural heat be more gradually restored by pouring cold water on the part, or by placing on it a little pounded ice, or a bladder containing iced water. If the application has not exceeded the first stages, there is no smarting, and no necessity, therefore, for such precautions.

The redness produced does not, as might at first be supposed, indicate an inflammatory condition, but the very reverse. The tonicity of the small arteries appears to be lessened or suspended for a time, and instead of being inflamed, the part is rendered unsusceptible of inflammation. Parts cut after congelation heal by adhesion or the first intention more quickly than they otherwise would; and, as has already been said, we possess in this expedient a certain prompt remedy for every inflammation accessible to its complete influence.

1. *Remedial Uses of Intense Cold.*—The remedial qualities of intense cold may be described as antiphlogistic, anodyne or sedative, and specific; and it is useful in the diseases for which other remedies possessing these qualities have been employed, viz., in inflammatory, painful or irritative, and malignant diseases. The circumstance which limits its application in these, is the impossibility of extending its influence beyond a certain extent or depth, although it is certain, from its effects in deep-seated disease, that this influence, whether it be direct or sympathetic, is more extensive than would at first be supposed. It may be laid down as a rule, that in every case in which the local application of moderate degrees of cold has been found of service, the use of well-regulated congelation would prove much more useful; and in those diseases of similar character, in which moderate cold has not been employed from the idea that their seat was beyond its reach, congelation might be tried with reasonable hope of success. Intense cold has this immense advantage over other powerful remedies of the same class, that it may be used with impunity—if it does no good it will do no harm. Who will venture to affirm this of bleeding, mercury, antimony, opium, chloroform, arsenic? Neither in my own practice, nor (so far as I can learn) in the practice of others, has there been any untoward result from the use of congelation. Its action being confined to the diseased part, and not uselessly expended on the rest of the sys-

tem, affords the explanation. Other topical remedies have much the same character for safety, but what other expedient of this class has a tenth part of the power of intense cold?

Instead of enumerating the diseases in which this agent has been employed according to the above classification, I shall mention, first, those in which it has been more or less successful; and, second, those in which it might, reasoning from analogy, be tried with hope of advantage. In administering intense cold as a remedy, the common or a more powerful frigidific has been generally applied directly to the part, or with the intervention only of the thin gauze containing it; and the duration of the congelation has been from one to ten minutes.

In the spring of the year 1849, I requested the house-surgeon of the Brighton dispensary to apprise me of every case of acute lumbago that came under his notice, and in all of these, amounting to nine, I employed congelation with perfect and permanent success. The net containing the ice and salt was passed to and fro for five minutes, over a surface of about eight by four inches, the skin being blanched during the whole of this period. In only two or three cases was it necessary to apply the remedy twice. Several of the patients rose immediately afterwards from their beds to which they had long been confined. In most cases of chronic rheumatism, the remedy has been equally successful; and this, on account of the frequency of the disease, is one of its most valuable applications. Sciatica has generally yielded to it, but by no means so easily. In acute rheumatism, the local inflammation of the joints is, by this means, invariably and completely relieved, and that portion of the accompanying fever thence arising, is consequently removed. The disease, thus treated, will run a painless course of about a week's duration. In no case, of about a dozen in which congelation was almost exclusively employed, was there extension of inflammation to the heart; and I am persuaded that the best plan of preventing this, is to subdue the inflammation of the joints from which it generally originates. I did not use the remedy in cases where the heart was already affected, though I have since learned that congelation is employed in the hospital at Vienna (where it was introduced some years ago by Dr. Waters of Chester.) as an application to the chest in rheumatic carditis. That this affection of the heart would occasionally occur during the treatment of acute rheumatism by congelation is very probable, because it often arises, as the same affection of the joint does, from a morbid condition of the blood over which the remedy can have no control; and that such an occurrence, in the present feeling on the subject, would be called metastasis from cold, is very certain; but I am convinced that it will yet be acknowledged,

though probably after many years, that this affection would be much decreased in frequency by the adoption of any means capable of quickly subduing the accompanying arthritis. When it is considered what an immense amount of eventual mischief arises from the organic disease of the heart that occurs under the common modes of treating rheumatic fever, to say nothing of the patient's present sufferings and tedious confinement, it is to be lamented that prejudice should oppose any measure of greater promise. In rheumatic gout, the relief has been as marked from congelation as in lumbago. In ordinary inflammation of the joints it has also been exceedingly useful. Ophthalmia has been immediately cured by keeping the frigorific in contact with the gently-closed eyelid for three or four minutes. Glandular inflammation in the neck and groin, yield to a high degree of cold with equal facility. I have been told that in orchitis, its beneficial operation is immediate; and I have little doubt that, from its closeness to the surface, the urethral inflammation causing orchitis, would be quickly suppressed. Congelation has often at once converted an irritable into a healing ulcer, though sometimes the patient has complained of the pain of the operation; it is probable that had the salt in the mixture been prevented coming in contact with the irritable surface, this would have been in a great degree prevented. Certain acute inflammatory affections of the skin are equally under its influence, as erysipelas, eczema, impetigo. It has not often failed in prurigo, but in only one case of psoriasis has it appeared to be of service. Painful nodes are at once relieved by this means, and the inflammation subdued. I have only used congelation in carbuncle as an anæsthetic previously to cutting it, but it is probable (judging from its effect in severe boils) that the incision might have been dispensed with. It has been mentioned to me that severe cold has been employed with the same view in whitlow, of which it is certainly a sufficient cure. The inflammation following sprains, contusions and other similar injuries, is perfectly under its influence; and the same may be said of burns. In one of my publications on the subject, I have related the excellent and speedy effect of congelation in a case of meningitis, and also in a case of peritonitis; I have not had the opportunity of trying it in other affections of this description. Headache of various kinds has at once yielded to the application, for a minute, of a frigorific over the painful part; and in neuralgia affecting the side, it has generally proved efficacious. In neuralgia attacking the face and other parts, it has often succeeded and often failed. If the seat of the disease be deep in the brain, little can be hoped from this remedy, although there are few

obstinate cases of neuralgia in which it does not deserve a trial. Toothache is generally at once relieved by it if properly applied; and there is no remedy for the painful affection of the mouth caused by mercury comparable to congelation. A spoonful of dissolving ice and salt is repeatedly put into the mouth, until it becomes benumbed. In one case of severe scurvy of the gums, where I feared a loss of the teeth, extensive congelation of the gums immediately arrested the disease.

In many of the diseases just enumerated, the promptness of the cure is as remarkable as its certainty. In military and hospital practice this advantage is very prominent.

In cancer the effects of congelation have been various.—From my own experience, and that of others, I think that in its early stages, and when from its size the tumor can be thoroughly brought under the influence of the remedy, it will be cured by it. In all stages the progress of cancer will be arrested or retarded, and the pain accompanying it assuaged. The difficulty in advanced cases is to cause a sufficient degree of cold to pervade the tumor. The French translator of a recent paper of mine on the subject (*L'Union Medicale* for May), thinks that the frequent occurrence of cysts in cancerous tumors may facilitate this. But if layer after layer is acted upon, it may be enough. In cancer of the womb the frigorific is applied by means of a speculum, and one stronger than ice and common salt will generally be required. The opinions of Dr. Hughes Bennett respecting the nature of cancer have much influenced the mode in which I have used congelation in its treatment. M. Velpeau states in his recent elaborate work on diseases of the breast, that he has employed *long-continued* congelation as a substitute for caustic in cancer; but of this effect of the agent I have no knowledge.

There are other diseases in the treatment of which severe cold would probably be very useful. It might be applied with such a hope to the spine in tetanus, or to the scalp in certain varieties of mania. After gunshot and other severe wounds, it would prove a powerful preventive and cure of inflammation. Even in pleuritis and other deep seated inflammation of the chest, as well as in various uterine affections, benefit might rationally be expected from it. In two cases of epidemic cholera, I administered a succession of draughts of a temperature of about 25 deg. Fahrenheit, with apparently excellent effect; and I cannot doubt that the application of cold to the interior of the stomach, which, as appears by the recently published report of the College of Physicians, is the only treatment of cholera which has been unanimously approved of, has not been carried far enough. If the irritation of the mucous membrane be considerable (as it must be, to account

for the exhausting and fatal discharges), the temperature of ice merely is not sufficient to subdue it.

11. *Anæsthetic Uses of Severe Cold.*—As patients now expect to have every operation performed without pain, both they and their surgeons will be glad to have an easy and agreeable means of accomplishing this, in all the common operations, unaccompanied with the dangers of chloroform. What can be less troublesome in opening an abscess, for instance, or making a cutaneous incision, than touching the skin for a moment with a small brass ball that has been immersed for a few minutes in ice and salt, or a thin spoon filled with such a mixture? It is true, that in deep-seated operations such a means can only suspend the sensibility of the skin; but it is the incision of the skin which constitutes the most painful part of every operation, and if this be benumbed, a smaller, and consequently less hazardous dose of ether or chloroform than has usually been administered, would be enough to remove the sensibility of the other tissues. These deep seated operations, however, constitute a small minority, and if the list of recorded deaths from etherization be referred to (now amounting to more than fifty) it will be found that in three fourths of the number, complete anæsthesia might have been produced with perfect safety by cold.

M. Velpeau, who introduced anæsthesia from cold into France, has, in a lecture on the subject recently reported in the *Gazette des Hopitaux*, expressed the doubt, whether in some operations, the hardening of the tissues by this means might not prevent their being cut with ease. I have not found this to be the case, nor does he himself allude to this supposed disadvantage, when, in his work on diseases of the breast, he mentions that he has excised tumors after anæsthesia from cold.

The fear of re-action I have already adverted to in the prefatory observations. Instead of re-action being produced, the anæsthetic is a preventive of inflammation from the wound; and were it used for this purpose alone, it would be invaluable.

Local anæsthesia from cold may, as has already been observed, be produced in a great variety of ways. Some of these may be applied so as to cause immediate congelation, but it is questionable whether the anæsthesia is not more extensive and lasting when more slowly caused. Such details, however, are unsuited to the general view of the subject intended by the present communication, which, I fear, has already exceeded its proper bounds.—*Edinburgh Monthly Jour. of Med. Science; from Boston M.d. and Surg. Journal.*

3. *On the Irritability of the Bladder.*—[The following interesting paper by Henry Thompson, Esq., F. R. C. S. M. B. published originally in the London Lancet, we commend to the readers of the Journal, for its valuable suggestions on a class of affections, as frequent as they are difficult to diagnosticate accurately, and consequently, in too many instances unsuccessfully treated. Mr. Thompson regards the "irritability of the bladder" no more as a pathological entity, than Cardialgia, and treats it as a symptom *merely* of a variety of diseased and disordered conditions of the general system as well as of the bladder and its contiguous and correlated organic structures. K.]

The phrase, irritability of the bladder, is a term which has long been employed both in and out of the profession, and which has become popular, rather on account of a certain convenient comprehensiveness and indefiniteness of meaning of which it is susceptible, than for any value which can be attributed to it as an explicit or perspicuous expression.

The usage of it, which is commonly adopted, comprehends a very wide and varied extent of signification, presenting at least two very distinct and different ideas; occasionally one of these only is implied, although much more generally the term is employed in a manner which renders it impossible to say which of the two is intended, or which conveys a confused notion involving a joint consideration of both.

In one of these senses, irritability of the bladder denotes nothing more than the phenomenon of unnaturally frequent micturition, and it is thus employed in describing one of the prominent symptoms of calculus or urethral stricture. In the other, it is used for the purpose of designating some affection of the bladder assumed to be present as the occasion of that symptom, especially when the cause does not appear to the inquirer to be very obvious or explicable.

Now, nothing can be more objectionable than the unguarded use of a term to which are attributed two such very different significations. Neither can it be otherwise than mischievous to employ it in the very loose and uncertain manner of which the latter is an example.

The simple condition described by the term in the sense which was first named, is one of very frequent occurrence among individuals of both sexes, and it is always attended with much annoyance, and often with severe distress to the sufferer. It can rarely or never be overlooked by the patient, and can scarcely fail to be recognised by the surgeon, while

the right interpretation of it is often of the greatest importance to both. It is a condition which constitutes the whole of the objective as well as the subjective signs in some diseases of the viscus in question; while in many it is the most distressing to the patient, and the most wearing to the constitution, of all his symptoms.

It is not surprising, then, that it should, not only by the patient, but even by the medical practitioner, come to be regarded, not merely as a sign or symptom of some morbid state, the seat of which may in reality be very remote, but as the manifestation of a disease localized in the bladder itself—a state which, in the absence of the signs of inflammation there, comes to be denoted by a term which I think it will appear can be rightly applied only to the symptom in question. Hence we often find “irritable bladder” prescribed for, apart from any distinct views of its cause, and even without much investigation thereof—at all events with so much only as shall exclude its better known and more generally recognized causes, such as cystitis, prostatitis, urethritis, and stricture of the urethra; and if these are absent, there appears to be a tendency to refer the symptom to some ideal condition of the bladder assumed to be present, which it saves our trouble, and shields the imperfection of our knowledge, to express by this term of irritable bladder. Hence we find the subject treated somewhat in this manner by authors on Diseases of the Bladder. A chapter on “Irritability,” as a disease, usually follows or precedes the sections which are devoted to the consideration of those morbid states which we understand by the terms acute and chronic inflammation.

Thus, Dr. Cross, of Louisville, in his large treatise on “Diseases of the Urinary Bladder,” &c., after discussing the acute and chronic inflammations, classifies “irritability” under the “nervous affections of the bladder,” and commences the chapter with these words: “The characteristic symptom of this is frequent micturition.” Mr. Coulson, in his well-known and useful work on the same subject, remarks that “this term is usually employed to denote any affection of the bladder attended with frequent desire to void the urine. I wish, however, to express by it a frequent and often irresistible desire to micturate, not arising from inflammation, nor from any organic affection of the bladder or prostrate gland, and sometimes, but not always, attended with pain. The frequent desire to micturate is the chief symptom of this complaint.” Sir Benjamin Brodie appears carefully to guard against the source of error alluded to above, commencing an exceedingly short paragraph upon the subject, in his valuable work on the “Urinary Organs,” with these words: “In the greater number of ca-

ses of disease of the bladder the most marked symptom under which the patient labors is a too frequent inclination to void the urine. The bladder is irritable; and those who have not combined with the observation of symptoms the study of morbid anatomy, are apt to confound with each other diseases which are essentially different, under the general appellation of irritable bladder."

Now, in harmony with the spirit of the last quotation, I venture to suggest that we shall be more likely to advance the true pathology of the important organ under consideration if we will consent to exclude from the term "irritable bladder" any kind of nosological import, to permit it to convey to the mind no suggestion in the light of a disease, but to limit its meaning to that which in truth is all that it possesses—viz: the expressing a symptom, and a symptom only, of which it is the province of the surgeon to determine, if possible, the true cause; and if it should appear that the seat of the complaint, the cause of the frequent micturition, is generally not in the bladder at all, but in some adjacent or remote part of the body, we shall, I think, at the same time, see the propriety of rejecting that usage of the term which involves a pathological sense in connexion with the bladder, and limited to that organ alone. At present its employment in the signification of a disease tends greatly to prevent the formation of a true diagnosis, inasmuch as a consent to accept the term in any given case satisfies some minds, and checks further inquiry, so that the common error of substituting an unmeaning name for a thing of reality is apt to be committed. On the other hand, its employment as the designation of a symptom only will stimulate us in the attempt to elicit from nature the real seat of the morbid action.

On these grounds therefore, I propose to regard this common and troublesome cause of complaint on the part of the patient, this *symptom* of frequent micturition, as a matter for inquiry, in relation chiefly to its etiology, in the present and two or three succeeding papers; and in order to prevent misunderstanding, I shall propose to define irritability of bladder to be a condition in which expulsive efforts are made by the organ with unnatural frequency, whether contents are present or not, whatever may be the cause which gives rise to the contractions. This condition is found in practice to manifest very widely-differing degrees of severity, and to be attended with some concomitant circumstances of a varied character. Generally speaking, irritability is denoted when a constant or almost constant desire to pass urine exists. Of this sensation, recurring exacerbations usually take place with more or less frequency. These may be wholly irresistible, compelling the

patient to yield to overwhelming efforts at expulsion, in which he passes a few drops of urine, or perhaps none at all, for the bladder may be perfectly empty. So far from relieving the sufferer, the effort of contraction is often productive of great agony, and its recurrence is dreaded. In other cases the desire is by no means constant, but is only felt at intervals of some minutes, or it may be of half an hour or an hour, and then great pain is experienced unless the wish be gratified. To all those cases which exhibit much involuntary paroxysmal effort the term spasm is commonly applied.

The usual number of times which a healthy man requires to empty the bladder is from three to five in the twenty-four hours, although perhaps a greater frequency may be occasionally associated with some peculiar idiosyncrasy or particular state of the system, which it would not be correct to characterize as morbid. Any marked deviation from this habit in the direction of frequency becomes a symptom conveniently expressed by the term "irritable bladder."

One of the most potent causes of irritability of the bladder is inflammation, generally chronic, rarely acute, affecting most commonly its mucous lining only, at all events at the outset of an attack. Any degree of inflammation in this coat gives rise to irritability; the extremities of the sensory nerves distributed to it forming afferent communications with the neighboring centres, from which motor impulses are propagated to the muscular coat of the viscus, and to the auxiliary muscles employed in the act of micturition. Excito-motory acts, however, are produced in a great variety of ways. Sources of irritation are to be found, not only in the organ itself, but at a distance from it. On taking a close survey of these, as far as my means of observation have enabled me, I beg leave to suggest the following classification of causes of irritability of the bladder, and by means of it to attempt an arrangement which shall be natural and comprehensive, and practically useful in assisting our diagnosis in relation to this important symptom. We shall do well, however, to bear in mind that its object is to facilitate the process and to improve the method of diagnosis, and that it should be regarded merely as a means to this end—a means necessarily imperfect, and in the details of its arrangement probably open to some objections, on account of the varied points of view from which many of the causes themselves may be regarded by different minds.

Irritability of the bladder, regarded as a symptom only, may be considered as resulting from various causes, which are classified under the following heads:—

A.—Certain conditions of the bladder itself.

B.—Abnormal character of its contents.

C.—Some abnormal and acquired conditions of adjacent or allied viscera and other parts, the disease being of a local character.

D.—Certain derangements of the assimilating and nervous systems.

A.—Certain Conditions of the Bladder itself.

1. Inflammation, acute.

“ chronic or subacute.

2. Cystorrhœa or congestive catarrh, from atony and relaxation of the capillaries of the mucous membrane, and usually a sequence of inflammation.

3. Abrasions and ulcerations of the mucous membrane.

4. Abscesses in the walls of the bladder.

5. Thickening of all the structures of the bladder from inflammatory deposit, so that the capability of the organ for contraction and dilatation is much impaired. The capacity being thus considerably diminished in some cases, a frequent desire to pass urine exists.

6. Gouty and rheumatic affections of the bladder, when, as is sometimes the case, these are the only local manifestations of constitutional derangement. The rheumatic affection appearing to be occasionally a sequence of gonorrhœa, and probably belonging to the same category as genorrhœal affections of the joints.

7. Increased or modified sensibility, usually of the neck of the bladder, no inflammation being present. Severe pain in the region of the bladder (neuralgia) from the same cause.

8. Tumours: simple—malignant.

B.—Abnormal Character of its Contents.

1. Urine containing an unusual quantity of acid or alkali, especially in Oxaluria and Phosphuria, also when there is an excess of uric acid; often associated with some form of chronic dyspepsia. Urine passed in an unusually large quantity.

2. Urine containing an admixture of certain drugs; as cantharides, the turpentine, &c.

3. Foreign bodies in the bladder, giving rise to spasmodic contractions of its muscular parietes; as calculi, not only when large, but sometimes when of small size, and termed gravel; coagulated blood, and lymph.

C.—Some Abnormal and Acquired Conditions of adjacent or allied Viscera and other parts, the disease being of a local character.

1. Obstructions in the urethra.

- “ from organic stricture.
- “ “ growths in the urethral canal.
- “ “ prostatic enlargement, whether from senile degeneration with hypertrophy, or other tumour.

2. Malformations of the prepuce, when its orifice is small, or when it is long and narrow.
3. Urethritis, balanitis, and inflammatory phymosis.
4. Prostatitis, acute and chronic.
5. Vaginitis.
6. Painful vascular tumour of urethra meatus in the female.
7. Perinæal, ischio rectal, or other adjacent abscess.
8. Hæmorrhoids.
9. Fissure of the anus, prolapsus recti, and other organic diseases of the bowel.
10. Prurigo about anus.
11. Scybala in the intestines.
12. Intestinal worms, particularly ascarides.
13. Organic diseases of the kidney; the irritability not being caused by the unhealthy character of urine secreted (Division B), but by means of some other medium of relationship between the kidney and bladder.
14. Impregnated uterus.
15. Diseases of the uterus and appendages. Misplacement of uterus, as prolapse, retroversion, &c.

D.—Certain Derangements of the Assimilating and Nervous Systems.

1. The gouty and rheumatic diathesis, no evidence of distinct local implication existing.
2. Hysteria, “spinal irritation,” as associated with irregularities of the menstrual function.
3. Irritable or mobile conditions of the nervous system; in elderly patients, probably connected with organic cerebral changes; in middle age and youth generally resulting from anæmia and spanæmia, caused perhaps not unfrequently by venereal excesses; in childhood and infancy, a naturally active state, in which dentition and other remote sources of irritation are exciting causes.
4. Diseases and injuries of the brain and spinal cord.
5. Mental emotions. Anxiety, fear, &c.

Frequent micturition may be a habit due entirely to false mental impressions; it may have been induced by some of the causes above mentioned, and persist in this manner after the cause is removed.

EDITORIAL NOTICES.

SPECULUM UTERI.—Much has been said and written of late, about the value of the speculum in the diagnosis and treatment of uterine diseases, and the propriety of using it in certain cases. Some writers who have little if any knowledge of the diseases of the uterus, and very limited experience in the treatment of them, fancy that metoscopic inspections are altogether unnecessary, and even injurious; and that uterine affections of every grade might be as successfully treated without even a digital examination. Others somewhat better informed in uterine pathology, insist that the “*tactus eruditus*” is quite reliable as a means of diagnosis, and regard the speculum as at least unnecessary.

There are others again, who are ready to propose the speculum upon the mere *suspicion* of the existence of uterine disease, and it is this latter class who have caused all the odium which has of late attached, in the minds of many, to the use of the speculum.

Some persons are on extremes in every thing—they are constitutionally predisposed to abuse every thing they have occasion to use, and it is from the indiscretions and follies of such persons, that the reputation of medicine has ever sustained the heaviest damages.

That certain diseased conditions of the uterus and its appendages may be correctly determined by the touch alone, and successfully treated, we are willing to admit. In cases of mere error of position, the fact being ascertained by digital examination, no intelligent physician would care to employ the speculum, as it could not aid in the least in confirming the diagnosis, nor be of any use whatever in the treatment.

It is very easy to write and talk about the “*tactus eruditus*,” and those who exaggerate its praises have probably the least *erudition* in their finger; but to *possess* this *tact* is a very different thing, and can be acquired as every physician knows, who has it, *only* by the assistance of the more intelligent eye. The *touch*, as has been justly remarked, has been resorted to for ages, as a means of diagnosis in uterine diseases, but the existence of ulceration and inflammatory hypertrophy was never even suspected, until the speculum revealed their existence, and such a phrase as the “*tactus eruditus*” would probably never have been found in the language of the profession, had it not been for the metoscopic investigations of a few industrious and gifted men in the profession, who have lately turned their attention specially to the study of uterine pathology. We are no apologists for the abuse or indiscriminate use of the speculum: That it is unnecessarily employed by some practitioners is very likely, and the same may be said of calomel, which has wrought more mischief in one year, than all the specula that were ever manufactured; but the occasional injudicious

employment of an instrument or a medicine is no warrant for discarding it altogether. Dr. Parrish ought to be ashamed of himself for his reckless denunciation of those in the profession who happen to differ with him in their estimate of the speculum;—there may be such “animals” as he terms them, down his way, who have neither respect for female modesty, nor regard for the reputation of the profession or any thing else but money,—who deserve to wear the brand of infamy that he would fasten on them; but such wholesale and unqualified denunciation as he hurls at the profession generally, is to say the least, *unprofessional*, and highly unbecoming in a man of Dr. Parrish’s pretensions. He may be for aught we know, wondrous “wise in his finger’s ends,” and able also to teach others, but there is certainly a great lack of good manners in his *pen*.

All we have to say to such *intensely*-refined moral gentlemen, is,—if they honestly regard the speculum as an invention of the Devil, and destructive of female modesty,—and *sincerely believe*, that it is a *sin* to employ it in their practice, as their tender consciences would be defiled, we exhort them to abandon it altogether; for, though “the speculum practice *per se*, is unobjectionable,” to *them* it is a *sin* to use it either “*per se*” or as a “*specialty*.”

But to those in the profession who as honestly *believe* that the speculum is indispensable to the correct diagnosis of many uterine diseases, and is a valuable aid in the treatment, and who have more *confidence* in the *strength* of female virtue, than to suppose it can be destroyed by the *innocent* speculum; it is no sin.

K.

ANNOUNCEMENTS OF DENTAL COLLEGES.—The annual announcements of the several Colleges of Dental Surgery for the session of 1854–5 are at hand. The enterprize they bespeak on the part of their respective Faculties is in the highest commendable. A reference to the advertisements of the Ohio and Baltimore Colleges—the one the pioneer of collegiate dental education in the East, and the other, in the West,—will show the course of instruction, terms of graduation &c. We regret that neither of these cards was received in time for our September issue, the more so as one, the Baltimore school, has a preliminary course in the month of October.

We congratulate the Faculty and Stockholders of the Ohio College upon the completion of their new college edifice and hope they may receive that reward which their zealous labors deserve.

W.

R. O. CURREY A.M., M.D.—It will be seen from the leading article in this No. of the Journal, that our *confrere*, Dr. Curry, is now resident of Knoxville Tenn., and has resumed the practice of medicine. Our readers will

be glad of this; for his articles in the department of "Chemistry and Pharmacy" though always good will now be better. He is one of the best practitioners we have ever known, and writes,—especially in obstetrical practice—with singular perspicuity and force. J.

Woman; Her diseases and Remedies. BY CHARLES D. MEIGS, M. D., Professor of Midwifery, and the diseases of women and children, in the Jefferson Medical College at Philadelphia; &c., &c., &c. Third edition revised and enlarged. Philadelphia: Blanchard & Lea. 1854.

This work has been before the profession in its several editions for some years, and though the author's style has occasionally been freely criticized, it has attained an extensive circulation throughout the United States, an evidence of its high appreciation by the mass of the profession. With all its imperfections of style, and were we disposed we could point out much that we object to, these letters embody a large amount of valuable information, conveyed with some exceptions, in an agreeable and familiar manner, which we think ought to more than atone for the defects, which are inseparable in some shape, from all human productions.

The book may be had in this city of Messrs. W. T. Berry & Co. K.

The Principles of Animal and Vegetable Physiology: A Popular Treatise on the Functions and Phenomena of Organic Life. To which is prefixed a General View of the Great Departments of Human Knowledge. By J. STEVENSON BUSHNAN, M. D., Physician to the Metropolitan Free Hospital, etc. 12mo. p.p. 234. Philadelphia: Blanchard & Lea. 1854.

Dr. Bushnan, in the capacity of editor of that valuable series of Treatises, designed more especially for general readers, entitled "*Orr's Circle of the Sciences*" now publishing in London, is doing a good work towards the popularization of science. In the little volume before us, one of the series referred to, he has presented a model of the kind; and we think Messrs. Blanchard & Lea have done themselves credit, and the cause of popular instruction service, by selecting it for republication.

Although designed for readers not specially versed in science, it is far from being unworthy the attention of those making greater pretensions. It exhibits, in a style exceedingly attractive, the leading principles of physiology in its most advanced state, evolving them in a light that cannot fail to interest those even to whom the subject matter is not new.

The first part of the book, "on the Nature, Connections and Uses of the great Departments of Human Knowledge," is an admirable essay. It may be read with profit by the plodding man of science who, absorbed in his "specialty," sees not the attractions of other parts, appreciates not the harmonious connections, the close dependence of the varied whole, as well

as by the novitiate yet unconscious of the sublimely vast and beautifully diversified field of scientific enquiry spread out before him solicitous of his cultivation.

In the body of the Treatise—"on the Physiology of Animal and Vegetable Life"—the author has endeavored, to use his own words, "to compress into the compass assigned to each essay an outline of the chief characteristics of life in the two great departments of Organic Nature, a statement of the relations of Plants and Animals to each other, and an account of their common dependence on the mineral or inorganic world:" in which endeavor he has certainly, to our mind, been peculiarly successful.

The work may be had at the book establishment of W. T. Berry & Co.

W.

The Principal Forms of the Skeleton and of the Teeth. By Professor R. OWEN, F. R. S., Author of "Odontography," "Lectures on Comparative Anatomy," "Archetype of the Skeleton," "On the Nature of Limbs," "History of British Fossil Mammalia," etc. 12 mo. pp. 329. Philadelphia: Blanchard & Lea. 1854.

This is also one of the series of "Orr's Circle of the Sciences," that the American publishers justly regard of such value as to be "worthy of an independent position and permanent form."

Prof. Owen, the greatest osteologist of the age—great in every department of natural science—has a renown that needs no commendation for any production of his. As an introduction to his favorite science, the principles of which constitute the true basis of Anatomical studies, this work will be acceptable to the medical profession, and none the less so because presented in more popular form than his great scientific works. The author does not attempt to avoid the use of technicalities, indispensable, to a certain extent, to a comprehension of the principles of the science treated of, but he elucidates the nomenclature and symbols employed so that the comprehension becomes sufficiently easy by a little pleasurable pains-taking

"Each year's experience," says the author, "strengthens my conviction that the rapid and successful progress of the knowledge of animal structures, and of the generalization deducible therefrom, will be mainly influenced by the determination of the nature or homology of the parts, and by the concomitant power of condensing the propositions relating to them, and of attaching to them signs or symbols equivalent to their single substantive names."

We commend the subject, and the book, to the attention of the profession. For sale by W. T. Berry & Co.

W.

The Prescriber's Pharmacopœia: Containing all the medicines in the London Pharmacopœias arranged in classes according to their character, with their doses. By a Practicing Physician. Altered to correspond with U. S. Dispensatory. Revised with additions. Third American from the 4th London edition. By THOS. F. COCK, M. D.

The above is the title of a very unpretending little volume, which has been submitted to us for examination. It comprises in a very small compass, a number of practical hints, and an amount of useful information, which commend it, in our judgment, not only to the youthful tyro in medicine, but also to the more experienced practitioner.

Part 1st contains a list of remedies for internal use, classified and alphabetically arranged, so as to present at a glance the different therapeutic agents relied upon to fulfil the various indications of disease, which may not only assist in the selection of a remedy, in the hurry of practice, but occasionally prove of very great advantage, by suggesting the most available substitutes when the most eligible remedies are not at hand. Part 2d contains a list of remedies for external use, with directions for their preparation and mode of application. In part the 3d., we have a list of poisons, together with the most reliable antidotes for each, as well as others most likely to be at hand, in case of emergence.

It contains also, a table showing the quantities of the stronger medicines contained in certain pharmaceutical compounds; directions for apportioning the dose of medicines according to the age; and a classified list of mineral waters.

In the appendix are to be found a number of useful proprietary and other formulæ, together with some practical suggestions, respecting the preparation of various articles of diet for the sick. An index facilitates a reference to the contents; making it upon the whole, we think, a very useful little book, well worthy the attention of the profession, and decidedly convenient as a "vade mecum" or pocket companion. W——N.

A Universal Formulary: Containing the methods of Preparing and Administering Officinal and other Medicines. The whole adapted to Physicians and Pharmacutists. By R. EGLESFELD GRIFFITH, M. D. A New Edition. Carefully revised and much extended. By ROBERT P. THOMAS, M. D. With Illustrations. Philadelphia: Blanchard & Lea. 1854. pp. 651.

The design of this work, as stated by the author, is to present a compendious collection of formulæ and pharmaceutical processes with such additional information as may render it useful to the Physician and Apothecary. It is an exceedingly convenient book to the general practitioner, as well as to the Druggist; and we commend it to the profession, as one of the best books of its kind that has yet been brought out. K.

The Modern Treatment of Syphilitic Diseases, both Primary and Secondary; Comprising the Treatment of Constitutional and Confirmed Syphilis, by a Safe and Successful Method; With Numerous Cases, Formulæ, and Clinical Observations. By LANGSTON PARKER, Surgeon to the Queen's Hospital, Birmingham. From the third, and entirely re-written London Edition. Philadelphia: Blanchard & Lea. 1854. pp. 316.

Mr. Parker states in the preface that he has personally treated more than 8000 cases of venereal disease, besides the opportunities he has had in the meantime of an extensive observation in a large Hospital; and submits his work to the profession, as the *record* of his experience in this department of therapeutics. It is a valuable work especially to the general practitioner, who has but little leisure, to examine the more voluminous works on the subject.

K.

For sale in this city, by W. T. Berry & Co.

Principles of Comparative Physiology. By WILLIAM B. CARPENTER, M. D., F. R. S., (etc.) With 309 Wood Engravings. A new American from the fourth London edition. 8vo. pp. 752. Philadelphia: Blanchard and Lea. 1854. [From the Publishers through W. T. Berry & Co.]

No author living has a wider reputation in the medico-scientific world than Dr. Carpenter; no one has labored harder or accomplished more; no one better deserves reward for continuous, undivided, effectual toil,—and none, perhaps, has received a better reward. Throughout our own country, at least, there is scarcely a medical man of reading but that possesses one or more of his works, or is well acquainted with their character.

Dr. Carpenter's merits, (and probably the secret of his wide-spread fame,) consist not so much in extended original research, as in his power of generalization, of collecting, combining, and moulding into form the researches of others, weighed and adjusted by his own, and deducing from the material thus collated and methodized, the great principles of the science to which his energies are devoted. His ambition is manifestly not to embrace a wide territory, but to cultivate well his chosen field; not to multiply books but to perfect those he writes. He confines his labors to physiology, and his pen for the most part to the revision and elaboration of his several treatises, keeping them always in front rank with the most advanced stage of the science.

The new edition of "Comparative Physiology" is revised throughout and greatly extended, representing the state of the science up to date of publication. The plan of the work has also been modified. The portion of the former editions comprising "General Physiology" is omitted in this, it being the author's intention to reproduce it in a separate volume. w.

A Clinical Introduction to the practice of Auscultation, and other modes of Physical Diagnosis in Diseases of the Lungs and Heart. By H. M. HUGHES, M. D., Fellow of the Royal College of Physicians; Assistant Physician to Guy's Hospital, &c. Second American, from the second and revised English edition. Philadelphia; Blanchard & Lea. 1854. pp. 304.

In an age like the present, when there is no end to the making of books on every conceivable subject, it is highly important that all the knowledge that may be of practical value to the physician should be presented in the smallest compass compatible with the importance of the subject. Whilst it is indispensable that every physician should make himself familiar with the practice of Auscultation and other modes of Physical Diagnosis, it is desirable to be able to acquire this information without the expenditure of an unnecessary amount of labor and time. It must be conceded that all that can be considered as really practical in this department may be embraced within a very small compass, and we think Dr. Hughes has fully met the indication in this little work. K.

Healthy Skin: A popular Treatise on the Skin and Hair, their preservation and management. By ERASMUS WILSON, F. R. S., Author of "A Treatise on diseases of the Skin," "A System of Human Anatomy," &c., &c. Second American, from the fourth and revised London edition. With illustrations. Philadelphia: Blanchard & Lea. 1854. pp. 291.

A knowledge of the minute anatomy and physiology of the skin is of the highest importance to the practitioner; it would be gratuitous to attempt to enforce the truth of this proposition by argument or proof, as no man can be competent to diagnose or treat disease without such knowledge; and it is remarkable that at the present day, when so much importance is attached to the study of human anatomy, and so many facilities afforded for dissection, that the study of the anatomy of the Skin has been comparatively neglected.

The profession is under obligation to Mr. Wilson for this valuable little work, and without essaying to enter into a review of the book at present, we would advise every practitioner to furnish himself forthwith with a copy.

The foregoing works may be had at the book store of W. T. Berry & Co. K.

The Pathology and Treatment of Pulmonary Tuberculosis and on the local medication of Pharyngeal and Laryngeal diseases frequently mistaken for, or associated with Phthisis. By JOHN HUGHES BENNETT, M. D., F. R. S. E., Professor of the institutes of Medicine and Clinical Medicine in the University of Edinburgh; Fellow and Censor of the Royal College of Physicians, Edinburgh: Member of the Ameri-

can Philosophical Society, and of various Medical Societies in Edinburgh, Paris, Vienna, Berlin, Stockholm, Copenhagen, etc., etc. pp. 130. Philadelphia : Blanchard & Lea. 1854.

If we were to obliterate all the foregoing titles, and say a medical book is written by *Bennett*, published by Blanchard & Lea, and for sale by W. T. Berry & Co., would be proof enough that it is O. K. J.

The Natural History of the Human Species ; its Typical Forms, Præval Distribution, Filiations and Migrations. By LIEUT. COL. CHAS. HAMILTON SMITH. With an introduction by S. KNEELAND, JR., M. D. 12 mo. pp. 419. Boston : Gould & Lincoln. 1851.

Types of Mankind, or Ethnological Researches, (etc.) With selections from papers of Dr. Morton, and contributions from Prof. Agassiz, and Drs. Usher and Patterson. By J. C. NOTT, M. D., and Geo. R. GLIDDON. 8 vo. pp. 738. Philadelphia : Lippincott, Grambo & Co. 1854.

Col. Smith in the unpretending treatise named at the head of this notice, takes ground that the several races of mankind have sprung from three distinct species or typical forms, from the intermixture of which have resulted the different varieties. He indicates three distinct periods and centres of creation for the different types, whence they have diffused themselves over the earth becoming mixed in their diffusion. The origin of the Mongolian race is referred to the Desert of Gobi, north of the Hymalaya chain ; of the Negro or Papuan to intertropical Africa, but their centre of diffusion, after a great cataclysis, to the southern slope of the Hymalayas ; of the Circassian, to Hindoo Kosh north of Hindoostan.

Thus while he makes out three distinct creations, he refers the different centres or foci of radiation to very nearly the same locality, viz : Central Asia. This view, it will be seen, yields one of the main arguments insisted upon by other advocates of diversity of origin, to-wit : that predicated upon the assumed necessity of separate centres of creation in order to the rapid and extensive diffusion of the human family over the earth within the period of man's creation.

Although we dissent from the author in his main conclusions, we must concede that his work evinces candor and a desire to obtain truth rather than victory ; it bespeaks the scientific investigator rather than the ambitious controversialist. The plates of crania and physiognomy form a valuable part of the book, which is certainly one of much research and observation, and worthy of perusal.

Remarks upon "Types of Mankind" we defer for want of space until our next. The book is gotten up in a style creditable to the publishers.

The above works may be obtained at the Bookstore of Messrs. TOOX, NELSON & Co., on Union street.


Experimental Researches, illustrative of the Functional Oneness, Unity, and Diffusion, of Nervous Action, in opposition to the Anatomical Assumption of Four Sets of Nerves, and a Fourfold Set of Functions, and Transmitted Impressions; with a brief exposition of the Philosophy of Vivisection, and of Sensation. By BENNET DOWLER, M. D., of New Orleans.

Observations on Exhaustion from the Effects of Heat. (Coup de Soliel.) By H. S. SWIFT, M. D., Resident Physician of the New York Hospital. (From the New York Journal of Medicine.) 1854.

The first mentioned essay comes to us as published in the New Orleans Medical and Surgical Journal under date of June, 1851. The Author's valuable investigations and reflections will be referred to in a future number.

The "Observations" of Dr. Swift were designed to draw more attention to the subject to which they relate, and for which the great number of sudden deaths occurring during the heat of summer, especially in our large, compactly built cities, loudly bespeaks attention. His observations are predicated mostly upon cases admitted in the New York Hospital the preceding summer. The paper, which is well written, gives evidence of that care in conducting clinical investigations, that candor and caution in deducing inferences therefrom, which can hardly fail to secure respect and confidence.

w.

 With this number, being the close of the Vol., we send bills again to those who have not paid, confidently trusting that all will at once respond—by return of mail. It may be some have remitted whose favors we have not received; if so we will cheerfully give credit upon notice. Should any have failed to receive their full complement of Nos., we will supply the deficit.

ADVERTISEMENTS.—Advertisements will be continued in the next volume at the same rates as heretofore. Those who may wish any alterations in their cards will please notify us by the 10th of December.

THE MAILS.—We are not disposed to busy ourselves with "Uncle Sam's" affairs, but the mails have been so intolerably irregular in these parts that we can but join the general clamor. The "post-office department" of our city has at times been so crowded that new matter could not be received until the old was disposed of, or if received, detained at the office for several days "abiding its turn." During the great stage travel this season, in consequence of low-water, we understand that the mails were sometimes left to accommodate *passengers!* Many of our exchanges are incomplete, having doubtless "*tarried by the way-side,*" which we regret as we would like to get them bound for preservation.

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Extracts from a Poem, entitled "THE QUACK FESTIVAL OR DANCE OF BITCHES, AN ADDRESS DELIVERED, (BY REQUEST,) BEFORE THE MEDICAL SOCIETY OF THE UNIVERSITY OF NASHVILLE; BY A WESTERN MEDICAL EDITOR:"—exposing the most striking characteristics and the tendency of the Production.

The circumstances calling for this exposure are as follows :

The Address above named, a doggerel poem, delivered at the Medical College, which is out of the control of the "University," was upon its public appearance in print, promptly reprehended in the January No. of the "Southern Journal of the Medical and Physical Sciences," published in Nashville, as indecent, obscene, filthy and disgraceful, immoral in influence and tendency upon the minds of young medical students, &c. This in the February No. of the "Nashville Journal of Medicine," edited by the author of the Address, is denied as a "vile slander," and the production held up as an irreprehensible "Epic," in which *"there was no indecency perpetrated—no immorality was committed,"* &c. The writer of the animadversions upon it is therefore forced to furnish the *proof* by extracts from the book itself—in separate form, as elsewhere stated. (See "*Southern Journal of the Medical and Physical Sciences*," for March 1854.)

* * * *

"But now that grannies live on every street,
Breeched and moustached, each woman's ill to meet,
Armed *cap-a-pie* with speculum and leech,
To *make*, as well as *heal*, the widening breech." (Page 12.)

* * * *

"For Aristotle taught, *when I was young*,
Since which it has been often said and sung,
That woman's fidgets, nervousness and gloom,
All came from spirits shut up in her womb;
An organ which was a consuming fire,
Always restless from unappeased desire.
'Tis true you moderns, long since, learned enough
To know that this philosophy is stuff;
But science often in a circle goes,
And one age dons another's cast-off clothes." (Page 13.)

* * * *

"No dance their sinewy, agile limbs could tire,
And every motion breathed venereal fire.

Nude was their bodies, to display their graces,
 While in full dress they had their heads and faces;
 Rich white silk turbans every head did cover,
 But not a rag below could I discover,
 Except a veil, as white as cornus blossom,
 Which hung in front to just below the bosom;
 Each veil was labelled with the empiric's name,
 For whom the huzzie husbanded her flame,
 Save when his *reg'lar* aider and abettor
 Embraced an opportunity to get her." (Page 39-40.)

* * * *

"Now their posteriors nearly touch the floor,
 And now rebound their partners' heads high o'er—
 Her long legs now around her lord's bull neck,
 Threaten its bony vertebræ to break.
 Their arms and legs now wove into a net,
 And now each turns a flip-flap summerset." (Page 41.)

* * * *

Her legs she locked behind her neck, and then,
 Still kept her feet until unlocked again;
 But e'en when locked she pigeon-winged so well,
 That no one there the difference could tell.
 At length, exhausted, she caved in, poor gal,
 And gave birth to a jug of 'Pectoral'." (Page 42.)

* * * *

"Her arms and legs she platted in a thong,
 And summersetted while she sung a song;
 And then, uncoiling, made an awful stride.
 Which measured just the length of each leg wide." (Page 42.)

* * * *

"Bet, nothing loth, squared up to this new friend,
 Who, ere beginning, gallantly did bend—
 His conge made so reverently low,
 As brought his nose almost to touch the floor.
 Bet waited till his head went up erect,
 And then, by way of showing *her* respect,
 She leaped into the air, and lighting, sat
 Upon his head as snugly as a hat!
 He grinned at this, and thought it excellent sport,
 But shortly after grinned another sort.
 Bet slipped a little, and the Doctor's face
 Was thus "located" in a *curious* place!
 He sneezed and snuffed, but it was no go,

Bet had him, and she meant to keep him so.
 She tightly clasped her hands behind his head,
 And pulled it forward till his face turned red;
 Yea, every variety of hue,
 All tending to the startling, livid blue.
 At length he fell down prostrate in a fit,
 His throat encircled by the legs of Bet;
 And just as he had sworn in heart to kill her,
 He vomited a quart of '*Sars'parrilla*'!"

(Page 43-44.)

"Ambitious Poll, yet struggling to advance
 Her reputation in the mystic dance,
 Stood on her head with horizontal legs,
 Like winding-blades—the toes stuck up for pegs—
 And round and round with lightning speed she went,
 Like a tetotum, ere its force is spent;
 And as she sped, the worms came pouring out,
 And fell in legions all around about!
 Still round she went, and growing less the while,
 And all unconscious of the weak'ning toil.
 At each gyration, as round she whirled,
 A thousand worms were born into the world."

(Page 46.)

"I'll give the world in volume number two."

